

110TH CONGRESS  
1ST SESSION

# S. 767

To increase fuel economy standards for automobiles and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

MARCH 6, 2007

Mr. OBAMA (for himself, Mr. LUGAR, Mr. BIDEN, Mr. SMITH, Mr. BINGAMAN, Mr. COLEMAN, and Mr. SPECTER) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To increase fuel economy standards for automobiles 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 “Fuel Economy Reform  
5 Act”.

6 **SEC. 2. FINDINGS.**

7 Congress makes the following findings:

8 (1) United States dependence on oil imports im-  
9 poses tremendous burdens on the economy, foreign  
10 policy, and military of the United States.

1           (2) According to the Energy Information Ad-  
2           ministration, 60 percent of the crude oil and petro-  
3           leum products consumed in the United States be-  
4           tween April 2005 and March 2006 (12,400,000 bar-  
5           rels per day) were imported. At a cost of \$75 per  
6           barrel of oil, people in the United States remit more  
7           than \$600,000 per minute to other countries for pe-  
8           troleum.

9           (3) A significant percentage of these petroleum  
10          imports originate in countries controlled by regimes  
11          that are unstable or openly hostile to the interests  
12          of the United States. Dependence on production  
13          from these countries contributes to the volatility of  
14          domestic and global markets and the “risk pre-  
15          mium” paid by consumers in the United States.

16          (4) The Energy Information Administration  
17          projects that the total petroleum demand in the  
18          United States will increase by 23 percent between  
19          2006 and 2026, while domestic crude production is  
20          expected to decrease by 11 percent, resulting in an  
21          anticipated 28 percent increase in petroleum im-  
22          ports. Absent significant action, the United States  
23          will become more vulnerable to oil price increases,  
24          more dependent upon foreign oil, and less able to  
25          pursue national interests.

1           (5) Two-thirds of all domestic oil use occurs in  
2           the transportation sector, which is 97 percent reliant  
3           upon petroleum-based fuels. Passenger vehicles, in-  
4           cluding light trucks under 10,000 pounds gross vehi-  
5           cle weight, represent over 60 percent of the oil used  
6           in the transportation sector.

7           (6) Corporate average fuel economy of all cars  
8           and trucks improved by 70 percent between 1975  
9           and 1987. Between 1987 and 2006, fuel economy  
10          improvements have stagnated and the fuel economy  
11          of the United States is lower than many developed  
12          countries and some developing countries.

13          (7) Significant improvements in engine tech-  
14          nology occurred between 1986 and 2006. These ad-  
15          vances have been used to make vehicles larger and  
16          more powerful, and have not focused solely on in-  
17          creasing fuel economy.

18          (8) According to a 2002 fuel economy report by  
19          the National Academy of Sciences, fuel economy can  
20          be increased without negatively impacting the safety  
21          of cars and trucks in the United States. Some new  
22          technologies can increase both safety and fuel econ-  
23          omy (such as high strength materials, unibody de-  
24          sign, lower bumpers). Design changes related to fuel  
25          economy also present opportunities to reduce the in-

1 compatibility of tall, stiff, heavy vehicles with the  
2 majority of vehicles on the road.

3 (9) Significant change must occur to strengthen  
4 the economic competitiveness of the domestic auto  
5 industry. According to a recent study by the Univer-  
6 sity of Michigan, a sustained gasoline price of \$2.86  
7 per gallon would lead Detroit's Big 3 automakers'  
8 profits to shrink by \$7,000,000,000 as they absorb  
9 75 percent of the lost vehicle sales. This would put  
10 nearly 300,000 people in the United States out of  
11 work.

12 (10) Opportunities exist to strengthen the do-  
13 mestic vehicle industry while improving fuel econ-  
14 omy. A 2004 study performed by the University of  
15 Michigan concludes that providing \$1,500,000,000  
16 in tax incentives over a 10-year period to encourage  
17 domestic manufacturers and parts facilities to  
18 produce clean cars will lead to a gain of nearly  
19 60,000 domestic jobs and pay for itself through the  
20 resulting increase in domestic tax receipts.

21 **SEC. 3. DEFINITION OF AUTOMOBILE AND PASSENGER**  
22 **AUTOMOBILE.**

23 (a) DEFINITION OF AUTOMOBILE.—

24 (1) IN GENERAL.—Paragraph (3) of section  
25 32901(a) of title 49, United States Code, is amend-

1 ed by striking “rated at—” and all that follows  
2 through the period at the end and inserting “rated  
3 at not more than 10,000 pounds gross vehicle  
4 weight.”.

5 (2) FUEL ECONOMY INFORMATION.—Section  
6 32908(a) of such title is amended, by striking “sec-  
7 tion—” and all that follows through “(2)” and in-  
8 serting “section, the term”.

9 (3) EFFECTIVE DATE.—The amendments made  
10 by paragraphs (1) and (2) shall apply to model year  
11 2010 and each subsequent model year.

12 (b) DEFINITION OF PASSENGER AUTOMOBILE.—

13 (1) IN GENERAL.—Paragraph (16) of section  
14 32901(a) of such title is amended by striking “, but  
15 does not include” and all that follows through the  
16 end and inserting a period.

17 (2) EFFECTIVE DATE.—The amendment made  
18 by paragraph (1) shall apply to model year 2012  
19 and each subsequent model year.

20 **SEC. 4. AVERAGE FUEL ECONOMY STANDARDS.**

21 (a) STANDARDS.—Section 32902 of title 49, United  
22 States Code, is amended—

23 (1) in subsection (a)—

1 (A) in the heading, by inserting “MANU-  
2 FACTURED BEFORE MODEL YEAR 2013” after  
3 “NON-PASSENGER AUTOMOBILES”; and

4 (B) by adding at the end the following:  
5 “This subsection shall not apply to automobiles  
6 manufactured after model year 2012.”;

7 (2) in subsection (b)—

8 (A) in the heading, by inserting “MANU-  
9 FACTURED BEFORE MODEL YEAR 2013” after  
10 “PASSENGER AUTOMOBILES”;

11 (B) by inserting “and before model year  
12 2010” after “1984”; and

13 (C) by adding at the end the following:  
14 “Such standard shall be increased by 4 percent  
15 per year for model years 2010 through 2012  
16 (rounded to the nearest 1/10 mile per gallon)”;

17 (3) by amending subsection (c) to read as fol-  
18 lows:

19 “(c) AUTOMOBILES MANUFACTURED AFTER MODEL  
20 YEAR 2012.—(1)(A) Not later than 18 months before the  
21 beginning of each model year after model year 2012, the  
22 Secretary of Transportation shall prescribe, by regula-  
23 tion—

1           “(i) an average fuel economy standard for auto-  
2           mobiles manufactured by a manufacturer in that  
3           model year; or

4           “(ii) based on 1 or more vehicle attributes that  
5           relate to fuel economy—

6                   “(I) separate average fuel economy stand-  
7                   ards for different classes of automobiles; or

8                   “(II) average fuel economy standards ex-  
9                   pressed in the form of a mathematical function.

10          “(B)(i) Except as provided under paragraphs (3) and  
11          (4) and subsection (d), average fuel economy standards  
12          under subparagraph (A) shall attain a projected aggregate  
13          level of average fuel economy of 27.5 miles per gallon for  
14          all automobiles manufactured by all manufacturers for  
15          model year 2013.

16          “(ii) The projected aggregate level of average fuel  
17          economy for model year 2014 and each model year there-  
18          after shall be increased by 4 percent over the level of the  
19          prior model year (rounded to the nearest 1/10 mile per  
20          gallon).

21          “(2) In addition to the average fuel economy stand-  
22          ards under paragraph (1), each manufacturer of pas-  
23          senger automobiles shall be subject to an average fuel  
24          economy standard for passenger automobiles manufac-  
25          tured by a manufacturer in a model year that shall be

1 equal to 92 percent of the average fuel economy projected  
2 by the Secretary for all passenger automobiles manufac-  
3 tured by all manufacturers in that model year. An average  
4 fuel economy standard under this subparagraph for a  
5 model year shall be promulgated at the same time as the  
6 standard under paragraph (1) for such model year.

7 “(3) If the actual aggregate level of average fuel  
8 economy achieved by manufacturers for each of 3 consecu-  
9 tive model years is 5 percent or more less than the pro-  
10 jected aggregate level of average fuel economy for such  
11 model year, the Secretary may make appropriate adjust-  
12 ments to the standards prescribed under this subsection.

13 “(4)(A) Notwithstanding paragraphs (1) through (3)  
14 and subsection (b), the Secretary of Transportation may  
15 prescribe a lower average fuel economy standard for 1 or  
16 more model years if the Secretary of Transportation, in  
17 consultation with the Secretary of Energy, finds, by clear  
18 and convincing evidence, that the minimum standards pre-  
19 scribed under paragraph (1)(B) or (3) or subsection (b)  
20 for each model year—

21 “(i) are technologically not achievable;

22 “(ii) cannot be achieved without materially re-  
23 ducing the overall safety of automobiles manufac-  
24 tured or sold in the United States and no offsetting



1 safety improvements can be practicably implemented  
2 for that model year; or

3 “(iii) is shown not to be cost effective.

4 “(B) If a lower standard is prescribed for a model  
5 year under subparagraph (A), such standard shall be the  
6 maximum standard that—

7 “(i) is technologically achievable;

8 “(ii) can be achieved without materially reduc-  
9 ing the overall safety of automobiles manufactured  
10 or sold in the United States; and

11 “(iii) is cost effective.

12 “(5) In determining cost effectiveness under para-  
13 graph (4)(A)(iii), the Secretary of Transportation shall  
14 take into account the total value to the United States of  
15 reduced petroleum use, including the value of reducing ex-  
16 ternal costs of petroleum use, using a value for such costs  
17 equal to 50 percent of the value of a gallon of gasoline  
18 saved or the amount determined in an analysis of the ex-  
19 ternal costs of petroleum use that considers—

20 “(A) value to consumers;

21 “(B) economic security;

22 “(C) national security;

23 “(D) foreign policy;

24 “(E) the impact of oil use—

1           “(i) on sustained cartel rents paid to for-  
2           eign suppliers;

3           “(ii) on long-run potential gross domestic  
4           product due to higher normal-market oil price  
5           levels, including inflationary impacts;

6           “(iii) on import costs, wealth transfers,  
7           and potential gross domestic product due to in-  
8           creased trade imbalances;

9           “(iv) on import costs and wealth transfers  
10          during oil shocks;

11          “(v) on macroeconomic dislocation and ad-  
12          justment costs during oil shocks;

13          “(vi) on the cost of existing energy security  
14          policies, including the management of the Stra-  
15          tegic Petroleum Reserve;

16          “(vii) on the timing and severity of the oil  
17          peaking problem;

18          “(viii) on the risk, probability, size, and  
19          duration of oil supply disruptions;

20          “(ix) on OPEC strategic behavior and  
21          long-run oil pricing;

22          “(x) on the short term elasticity of energy  
23          demand and the magnitude of price increases  
24          resulting from a supply shock;

1           “(xi) on oil imports, military costs, and re-  
2           lated security costs, including intelligence,  
3           homeland security, sea lane security and infra-  
4           structure, and other military activities;

5           “(xii) on oil imports, diplomatic and for-  
6           eign policy flexibility, and connections to geo-  
7           political strife, terrorism, and international de-  
8           velopment activities;

9           “(xiii) on all relevant environmental haz-  
10          ards under the jurisdiction of the Environ-  
11          mental Protection Agency; and

12          “(xiv) on well-to-wheels urban and local air  
13          emissions of ‘pollutants’ and their  
14          uninternalized costs;

15          “(F) the impact of the oil or energy intensity  
16          of the United States economy on the sensitivity of  
17          the economy to oil price changes, including the mag-  
18          nitude of gross domestic product losses in response  
19          to short term price shocks or long term price in-  
20          creases;

21          “(G) the impact of United States payments for  
22          oil imports on political, economic, and military devel-  
23          opments in unstable or unfriendly oil exporting  
24          countries;

1           “(H) the uninternalized costs of pipeline and  
2 storage oil seepage, and for risk of oil spills from  
3 production, handling, and transport, and related  
4 landscape damage; and

5           “(I) additional relevant factors, as determined  
6 by the Secretary.

7           “(6) When considering the value to consumers of a  
8 gallon of gasoline saved, the Secretary of Transportation  
9 may not use a value that is less than the greatest of—

10           “(A) the average national cost of a gallon of  
11 gasoline sold in the United States during the 12-  
12 month period ending on the date on which the new  
13 fuel economy standard is proposed;

14           “(B) the most recent weekly estimate by the  
15 Energy Information Administration of the Depart-  
16 ment of Energy of the average national cost of a  
17 gallon of gasoline (all grades) sold in the United  
18 States; or

19           “(C) the gasoline prices projected by the En-  
20 ergy Information Administration for the 20-year pe-  
21 riod beginning in the year following the year in  
22 which the standards are established.

23           “(7) In prescribing standards under this subsection,  
24 the Secretary may prescribe standards for 1 or more  
25 model years.

1           “(8)(A) Not later than December 31, 2016, the Sec-  
2 retary of Transportation, the Secretary of Energy, and the  
3 Administrator of the Environmental Protection Agency  
4 shall submit a joint report to Congress on the state of  
5 global automotive efficiency technology development, and  
6 on the accuracy of tests used to measure fuel economy  
7 of automobiles under section 32904(c), utilizing the study  
8 and assessment of the National Academy of Sciences re-  
9 ferred to in subparagraph (B).

10           “(B) The Secretary of Transportation shall enter into  
11 appropriate arrangements with the National Academy of  
12 Sciences to conduct a comprehensive study of the techno-  
13 logical opportunities to enhance fuel economy and an anal-  
14 ysis and assessment of the accuracy of fuel economy tests  
15 used by the Administrator of the Environmental Protec-  
16 tion Agency to measure fuel economy for each model  
17 under section 32904(c). Such analysis and assessment  
18 shall identify any additional factors or methods that  
19 should be included in tests to measure fuel economy for  
20 each model to more accurately reflect actual fuel economy  
21 of automobiles. The Secretary of Transportation and the  
22 Administrator of the Environmental Protection Agency  
23 shall furnish, at the request of the Academy, any informa-  
24 tion that the Academy determines to be necessary to con-

1 duct the study, analysis, and assessment under this sub-  
2 paragraph.

3 “(C) The report submitted under subparagraph (A)  
4 shall include—

5 “(i) the study of the National Academy of  
6 Sciences referred to in subparagraph (B); and

7 “(ii) an assessment by the Secretary of Trans-  
8 portation of technological opportunities to enhance  
9 fuel economy and opportunities to increase overall  
10 fleet safety.

11 “(D) The report submitted under subparagraph (A)  
12 shall identify and examine additional opportunities to re-  
13 form the regulatory structure under this chapter, includ-  
14 ing approaches that seek to merge vehicle and fuel require-  
15 ments into a single system that achieves equal or greater  
16 reduction in petroleum use and environmental benefits  
17 than the amount of petroleum use and environmental ben-  
18 efits that have been achieved as of the date of the enact-  
19 ment of this Act.

20 “(E) The report submitted under subparagraph (A)  
21 shall—

22 “(i) include conclusions reached by the Admin-  
23 istrator of the Environmental Protection Agency, as  
24 a result of detailed analysis and public comment, on  
25 the accuracy of fuel economy tests as in use during

1 the period beginning on the date that is 5 years be-  
2 fore the completion of the report and ends on the  
3 date of such completion;

4 “(ii) identify any additional factors that the Ad-  
5 ministrator determines should be included in tests to  
6 measure fuel economy for each model to more accu-  
7 rately reflect actual fuel economy of automobiles;  
8 and

9 “(iii) include a description of options, formu-  
10 lated by the Secretary of Transportation and the  
11 Administrator, to incorporate such additional factors  
12 in fuel economy tests in a manner that will not ef-  
13 fectively increase or decrease average fuel economy  
14 for any automobile manufacturer.”; and

15 (4) in subsection (g)(2), by striking “(and sub-  
16 mit the amendment to Congress when required  
17 under subsection (c)(2) of this section)”.

18 (b) CONFORMING AMENDMENTS.—

19 (1) IN GENERAL.—Chapter 329 of title 49,  
20 United States Code, is amended—

21 (A) in section 32903—

22 (i) by striking “passenger” each place  
23 it appears;

24 (ii) by striking “section 32902(b)–(d)  
25 of this title” each place it appears and in-

1                   serting “subsection (e) or (d) of section  
2                   32902”;

3                   (iii) by striking subsection (e); and

4                   (iv) by redesignating subsection (f) as  
5                   subsection (e); and

6                   (B) in section 32904—

7                   (i) in subsection (a)—

8                   (I) by striking “passenger” each  
9                   place it appears; and

10                  (II) in paragraph (1), by striking  
11                  “subject to” and all that follows  
12                  through “section 32902(b)–(d) of this  
13                  title” and inserting “subject to sub-  
14                  section (e) or (d) of section 32902”;  
15                  and

16                  (ii) in subsection (b)(1)(B), by strik-  
17                  ing “under this chapter” and inserting  
18                  “under section 32902(c)(2)”.

19                  (2) EFFECTIVE DATE.—The amendments made  
20                  by this section shall apply to automobiles manufac-  
21                  tured after model year 2012.

22       **SEC. 5. CREDIT TRADING, COMPLIANCE, AND JUDICIAL RE-**  
23       **VIEW.**

24                  (a) CREDIT TRADING.—Section 32903(a) of title 49,  
25       United States Code, is amended—



1           (1) by inserting “Credits earned by a manufac-  
2           turer under this section may be sold to any other  
3           manufacturer and used as if earned by that manu-  
4           facturer, except that credits earned by a manufac-  
5           turer described in clause (i) of section  
6           32904(b)(1)(A) may only be sold to a manufacturer  
7           described such clause (i) and credits earned by a  
8           manufacturer described in clause (ii) of such section  
9           may only be sold to a manufacturer described in  
10          such clause (ii).” after “earns credits.”;

11          (2) by striking “3 consecutive model years im-  
12          mediately” each place it appears and inserting  
13          “model years”; and

14          (3) effective for model years after 2012, the  
15          sentence added by paragraph (1) of this subsection  
16          is amended by inserting “for purposes of compliance  
17          with section 32902(c)(2)” after “except that”.

18          (b) MULTI-YEAR COMPLIANCE PERIOD.—Section  
19          32904(c) of such title is amended—

20                 (1) by inserting “(1)” before “The Adminis-  
21                 trator”; and

22                 (2) by adding at the end the following:

23                 “(2) The Secretary, by rule, may allow a manufac-  
24                 turer to elect a multi-year compliance period of not more  
25                 than 4 consecutive model years in lieu of the single model

1 year compliance period otherwise applicable under this  
2 chapter.”.

3 (c) JUDICIAL REVIEW OF REGULATIONS.—Section  
4 32909(a)(1) of such title is amended by striking out “ad-  
5 versely affected by” and inserting “aggrieved or adversely  
6 affected by, or suffering a legal wrong because of,”.

○