

110TH CONGRESS
1ST SESSION

S.1324

To amend the Clean Air Act to reduce greenhouse gas emissions from transportation fuel sold in the United States.

IN THE SENATE OF THE UNITED STATES

MAY 7, 2007

Mr. REID (for Mr. OBAMA (for himself and Mr. HARKIN)) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To amend the Clean Air Act to reduce greenhouse gas emissions from transportation fuel sold in the United States.

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 “National Low-Carbon
5 Fuel Standard Act of 2007”.

6 **SEC. 2. FINDINGS.**

7 Congress finds that—

8 (1) the dependence of the United States on im-
9 ported oil imposes tremendous burdens on the econ-

1 omy, foreign policy, and military of the United
2 States;

3 (2) according to the Energy Information Ad-
4 ministration, 60 percent of the crude oil and petro-
5 leum products consumed in the United States are
6 imported;

7 (3) at a cost of approximately \$75 per barrel of
8 oil, people in the United States remit more than
9 \$600,000 per minute to other countries for crude oil
10 and petroleum imports;

11 (4) a significant percentage of those imports
12 originate in countries controlled by regimes that are
13 unstable or openly hostile to the interests of the
14 United States;

15 (5) dependence on oil production from those
16 countries contributes to the volatility of domestic
17 and global markets and corresponding increase in oil
18 prices paid by consumers in the United States (com-
19 monly known as a “risk premium”);

20 (6) the Energy Information Administration
21 projects that the total petroleum demand in the
22 United States will increase by 23 percent between
23 2006 and 2026, while domestic crude oil production
24 is expected to decrease by 11 percent, resulting in

1 an anticipated 28-percent increase in petroleum im-
2 ports;

3 (7) absent significant action, the United States
4 will become more vulnerable to oil price increases
5 and more dependent on foreign oil;

6 (8) $\frac{2}{3}$ of all domestic oil use occurs in the
7 transportation sector, which is 97 percent reliant on
8 petroleum-based fuels;

9 (9) passenger vehicles, including light trucks
10 under 10,000 pounds gross vehicle weight, represent
11 more than 60 percent of the oil used in the trans-
12 portation sector;

13 (10) the oil used in the transportation sector
14 accounts for approximately $\frac{1}{3}$ of the emissions in
15 the United States of the greenhouse gases that
16 cause global warming;

17 (11) to avoid catastrophic global warming, the
18 United States should take decisive action, in con-
19 junction with other countries, to reduce greenhouse
20 gas emissions by 60 to 80 percent from 1990 levels
21 by 2050;

22 (12) transitioning the transportation sector in
23 the United States to a more efficient use of low-car-
24 bon petroleum alternatives is essential both to in-
25 creasing domestic energy security and reducing glob-

1 al warming pollution, but that transition must be ac-
 2 complished while avoiding adverse impacts on the
 3 environment; and

4 (13) it is urgent, essential, and feasible to re-
 5 duce emissions of greenhouse gases, enhance na-
 6 tional security by reducing dependence on oil, and
 7 promote economic well-being without sacrificing
 8 land, water, and air quality by enacting energy poli-
 9 cies that motivate environmental performance.

10 **SEC. 3. RENEWABLE FUEL STANDARD.**

11 The table contained in section 211(o)(2)(B)(i) of the
 12 Clean Air Act (42 U.S.C. 7545(o)(2)(B)(i)) is amended—

13 (1) in the row expressing applicable volume of
 14 renewable fuel (in billions of gallons) for calendar
 15 year 2009, by striking “6.1” and inserting “12.0”;

16 (2) in the row expressing applicable volume of
 17 renewable fuel (in billions of gallons) for calendar
 18 year 2010, by striking “6.8” and inserting “13.0”;

19 (3) in the row expressing applicable volume of
 20 renewable fuel (in billions of gallons) for calendar
 21 year 2011, by striking “7.4” and inserting “14.0”;
 22 and

23 (4) in the row expressing applicable volume of
 24 renewable fuel (in billions of gallons) for calendar
 25 year 2012, by striking “7.5” and inserting “15.0”.

1 **SEC. 4. NATIONAL LOW-CARBON FUEL STANDARD.**

2 (a) DEFINITIONS.—Section 241 of the Clean Air Act
3 (42 U.S.C. 7581) is amended—

4 (1) by striking “For purposes of this part—”
5 and inserting “In this part.”;

6 (2) by redesignating paragraphs (1), (2), (3),
7 (4), (5), (6), and (7) as paragraphs (12), (2), (10),
8 (1), (4), (5), and (3), respectively, and moving those
9 paragraphs so as to appear in numerical order;

10 (3) by inserting after paragraph (5) (as redesign-
11 nated by paragraph (2)) the following:

12 “(6) FUEL EMISSION BASELINE.—The term
13 ‘fuel emission baseline’ means the average lifecycle
14 greenhouse gas emissions per unit of energy of the
15 average of conventional transportation fuels in com-
16 merce in the United States during the period of cal-
17 endar years 2005 through 2007.

18 “(7) GREENHOUSE GAS.—The term ‘greenhouse
19 gas’ means any of—

20 “(A) carbon dioxide;

21 “(B) methane;

22 “(C) nitrous oxide;

23 “(D) hydrofluorocarbons;

24 “(E) perfluorocarbons; and

25 “(F) sulfur hexafluoride.

1 “(8) LIFECYCLE GREENHOUSE GAS EMIS-
 2 SIONS.—The term ‘lifecycle greenhouse gas emis-
 3 sions’ means, with respect to a fuel, the aggregate
 4 quantity of greenhouse gases emitted during produc-
 5 tion, feedstock extraction, distribution, and use of
 6 the fuel, as determined by the Administrator.

7 “(9) LOW-CARBON FUEL.—

8 “(A) IN GENERAL.—The term ‘low-carbon
 9 fuel’ means fuel produced, to the maximum ex-
 10 tent practicable, in the United States—

11 “(i) that meets the requirements of an
 12 appropriate American Society for Testing
 13 and Materials standard; and

14 “(ii) the lifecycle greenhouse gas emis-
 15 sions of which are lower than the fuel
 16 emission baseline, as determined by the
 17 Administrator.

18 “(B) EXCLUSIONS.—The term ‘low-carbon
 19 fuel’ does not include fuel produced from bio-
 20 mass derived from—

21 “(i) designated national interest land
 22 (such as land included in a national wild-
 23 life refuge, national park, national monu-
 24 ment, national forest, or national grass-
 25 land); or

1 “(ii) any—

2 “(I) old-growth forest;

3 “(II) roadless area within a na-
4 tional forest;

5 “(III) wilderness study area;

6 “(IV) protected native grassland;

7 or

8 “(V) lawfully designated intact,
9 rare, threatened, or endangered eco-
10 system.”; and

11 (4) by inserting after paragraph (10) (as redes-
12 igned by paragraph (2)) the following:

13 “(11) OBLIGATED PARTY.—

14 “(A) IN GENERAL.—The term ‘obligated
15 party’ means an obligated party as described in
16 section 80.1106 of title 40, Code of Federal
17 Regulations (or a successor regulation).

18 “(B) RELATED TERM.—The term ‘any and
19 all of the products’, when used with respect to
20 an obligated party, means diesel and aviation
21 fuel to be included in the volume used to cal-
22 culate the requirements applicable to the obli-
23 gated party under section 250.”.

1 (b) NATIONAL LOW-CARBON FUEL STANDARD.—
 2 Part C of title II of the Clean Air Act (42 U.S.C. 7581
 3 et seq.) is amended—

4 (1) by redesignating section 250 (42 U.S.C.
 5 7590) as section 251; and

6 (2) by inserting after section 249 (42 U.S.C.
 7 7589) the following:

8 **“SEC. 250. NATIONAL LOW-CARBON FUEL STANDARD.**

9 “(a) IN GENERAL.—Not later than January 1, 2009,
 10 the Administrator shall, by regulation—

11 “(1) establish a fuel emission baseline based on
 12 the average lifecycle greenhouse gas emissions per
 13 unit of energy of the average of conventional trans-
 14 portation fuels in commerce in the United States
 15 during the period of calendar years 2005 through
 16 2007;

17 “(2) identify qualifying low-carbon transpor-
 18 tation fuels based on—

19 “(A) whether the lifecycle greenhouse gas
 20 emissions of a fuel are lower, per unit of energy
 21 delivered by use of a specific quantity of the
 22 fuel, than the fuel emission baseline, including
 23 the percentage greenhouse gas emission reduc-
 24 tion provided by the fuel to the fuel emission
 25 baseline;

1 “(B) whether a fuel—

2 “(i) achieves a substantial reduction
3 in petroleum content over the lifecycle of
4 the fuel; and

5 “(ii) otherwise contributes to the en-
6 ergy security of the United States; and

7 “(C) with respect to calculation of the
8 lifecycle greenhouse gas emissions of the fuels
9 used in vehicles that run on electricity or a hy-
10 drogen fuel, the quantity of energy delivered by
11 use of the fuel, which shall be determined by
12 calculating the product obtained by multi-
13 plying—

14 “(i) a unit of energy delivered by use
15 of the electricity or hydrogen fuel; and

16 “(ii) an adjustment factor determined
17 by the Administrator to reflect the sub-
18 stantial lifecycle greenhouse gas benefits of
19 using the electricity or hydrogen fuel, on a
20 per-mile basis, resulting from reasonably
21 anticipated energy efficiency of an aver-
22 age—

23 “(I) battery electric vehicle;

24 “(II) plug-in hybrid electric vehi-
25 cle; or

1 “(III) hydrogen fuel cell vehicle;

2 and

3 “(3) establish a low-carbon fuel certification

4 and marketing process—

5 “(A) to certify fuels that qualify as low-
6 carbon fuels under this section;

7 “(B) to make those certifications available
8 to consumers; and

9 “(C) to label and market low-carbon fuels.

10 “(b) ENVIRONMENTAL SUSTAINABILITY STAND-
11 ARDS.—Not later than January 1, 2012, the Adminis-
12 trator shall also identify qualifying low-carbon transpor-
13 tation fuels based on environmental sustainability stand-
14 ards established under section 211(t)(2)(B).

15 “(c) REQUIREMENTS APPLICABLE TO OBLIGATED
16 PARTIES.—

17 “(1) REQUIREMENTS.—

18 “(A) CALENDAR YEARS 2010 THROUGH
19 2024.—Not later than January 1, 2010, the Ad-
20 ministrator shall, by regulation, require each
21 obligated party to reduce, through the use of
22 low-carbon fuels and improvements in the pro-
23 duction of conventional fuels, the average
24 lifecycle greenhouse gas emissions per unit of
25 energy of the aggregate quantity of fuels intro-

1 duced into commerce by the obligated party to
2 a level that is, as determined by the Adminis-
3 trator, to the maximum extent practicable—

4 “(i) by calendar year 2011, substan-
5 tially equivalent to the fuel emission base-
6 line;

7 “(ii) by calendar year 2015, substan-
8 tially equivalent to at least 5 percent below
9 the fuel emission baseline; and

10 “(iii) by calendar year 2020, substan-
11 tially equivalent to at least 10 percent
12 below the fuel emission baseline.

13 “(B) CALENDAR YEAR 2025 AND THERE-
14 AFTER.—For calendar year 2025, and by not
15 later than each fifth calendar year thereafter,
16 the Administrator shall, by regulation, require
17 each obligated party to reduce the average
18 lifecycle greenhouse gas emissions per unit of
19 energy of the aggregate quantity of fuels intro-
20 duced into commerce by the obligated party to
21 a level that is, as determined by the Adminis-
22 trator, at least 13 percent below the fuel emis-
23 sion baseline (with respect to calendar year
24 2025), and at least 2 percent below the most
25 recent percentage reduction (with respect to

each fifth calendar year thereafter), unless the Administrator, in coordination with the Secretary of Agriculture and the Secretary of Energy, establishes an alternative required percentage reduction based on—

“(i) a review of the implementation of this paragraph during the period of calendar years 2010 through 2020;

“(ii) the expected annual rate of future production of low-carbon fuel, and Category I ultra-low carbon fuel and Category II ultra-low carbon fuel (as those terms are defined in subsection (p)); and

“(iii) the practicability of complying with environmental sustainability standards referred to in subsection (b).

“(2) FAILURE TO PROMULGATE REGULATIONS.—If the Administrator does not promulgate regulations in accordance with this subsection, the average lifecycle greenhouse gas emissions of the aggregate quantity of fuel introduced by an obligated party for calendar year 2012 shall be at least 3 percent below the average lifecycle greenhouse gas emissions of gasoline in commerce in the United States during calendar year 2007.

1 “(3) TEMPORARY SUSPENSION.—An obligated
 2 party may apply to the Administrator to receive a
 3 temporary suspension of the requirement to comply
 4 with this subsection if the obligated party dem-
 5 onstrates to the satisfaction of the Administrator
 6 that events outside of the control of the obligated
 7 party could lead or have led to supply disruptions in
 8 the transportation fuel supply of the United States.

9 “(4) ENFORCEMENT; PENALTIES.—In carrying
 10 out this subsection, the Administrator—

11 “(A) shall enforce this subsection in ac-
 12 cordance with the authority of the Adminis-
 13 trator to enforce this Act; and

14 “(B) may commence a civil action and as-
 15 sess and collect penalties in accordance with the
 16 amounts and under the authority described in
 17 section 205.

18 “(d) CREDITS.—

19 “(1) IN GENERAL.—The regulations promul-
 20 gated to carry out this section shall permit obligated
 21 parties to receive credits for achieving, during a cal-
 22 endar year, greater reductions in lifecycle green-
 23 house gas emissions of the fuel produced, distrib-
 24 uted, or imported by the obligated party than are re-
 25 quired under subsection (c).

1 “(2) METHOD OF CALCULATION.—The number
 2 of credits received by an obligated party described in
 3 paragraph (1) for a calendar year shall be calculated
 4 by multiplying—

5 “(A) the aggregate quantity of fuel pro-
 6 duced, distributed, or imported by the obligated
 7 party in the calendar year; and

8 “(B) the difference between—

9 “(i) the lifecycle greenhouse gas emis-
 10 sions of that quantity of fuel; and

11 “(ii) the maximum lifecycle green-
 12 house gas emissions of that quantity of
 13 fuel permitted for the calendar year under
 14 subsection (c).”.

15 **SEC. 5. ULTRA-LOW CARBON FUEL STANDARD.**

16 (a) IN GENERAL.—Section 211 of the Clean Air Act
 17 (42 U.S.C. 7545) is amended—

18 (1) by redesignating the first subsection (r) (re-
 19 lating to fuel and fuel additive importers and impor-
 20 tation) as subsection (v) and moving that subsection
 21 so as to appear at the end of the section; and

22 (2) by inserting after subsection (o) the fol-
 23 lowing:

24 “(p) ULTRA-LOW CARBON FUEL STANDARD.—

1 “(1) DEFINITIONS.—In this subsection and
2 subsection (t):

3 “(A) CATEGORY I ULTRA-LOW CARBON
4 FUELS.—

5 “(i) IN GENERAL.—The term ‘Cat-
6 egory I ultra-low carbon fuel’ means fuel
7 produced in the United States—

8 “(I) that meets the requirements
9 of an appropriate American Society
10 for Testing and Materials standard;
11 and

12 “(II) the lifecycle greenhouse gas
13 emissions of which are at least 50 per-
14 cent lower than the average lifecycle
15 greenhouse gas emissions of conven-
16 tional transportation fuel, as deter-
17 mined by the Administrator.

18 “(ii) EXCLUSIONS.—The term ‘Cat-
19 egory I ultra-low carbon fuel’ does not in-
20 clude fuel produced from biomass derived
21 from—

22 “(I) designated national interest
23 land (such as land included in a na-
24 tional wildlife refuge, national park,

national monument, national forest,
or national grassland); or

“(II) any—

“(aa) old-growth forest;

“(bb) roadless area within a
national forest;

“(cc) wilderness study area;

“(dd) protected native grass-
land; or

“(ee) lawfully-designated in-
tact, rare, threatened, or endan-
gered ecosystem.

“(B) CATEGORY II ULTRA-LOW CARBON
FUEL.—

“(i) IN GENERAL.—The term ‘Cat-
egory II ultra-low carbon fuel’ means any
fuel produced in the United States—

“(I) that meets the requirements
of an appropriate American Society
for Testing and Materials standard;
and

“(II) the average lifecycle green-
house gas emissions of which are at
least 75 percent lower than the aver-
age lifecycle greenhouse gas emissions

1 of conventional transportation fuel, as
 2 determined by the Administrator.

3 “(ii) EXCLUSIONS.—The term ‘Cat-
 4 egory II ultra-low carbon fuel’ does not in-
 5 clude fuel produced from biomass derived
 6 from—

7 “(I) designated national interest
 8 land (such as land included in a na-
 9 tional wildlife refuge, national park,
 10 national monument, national forest,
 11 or national grassland); or

12 “(II) any—

13 “(aa) old-growth forest;

14 “(bb) roadless area within a
 15 national forest;

16 “(cc) wilderness study area;

17 “(dd) protected native grass-
 18 land; or

19 “(ee) lawfully designated in-
 20 tact, rare, threatened, or endan-
 21 gered ecosystem.

22 “(C) CONVENTIONAL TRANSPORTATION
 23 FUEL.—The term ‘conventional transportation
 24 fuel’ means any fossil-fuel based transportation

1 fuel used in the United States as of the date of
2 enactment of this subsection.

3 “(D) LOW-CARBON FUEL.—The term ‘low-
4 carbon fuel’ has the meaning given the term in
5 section 241.

6 “(2) ULTRA-LOW CARBON FUEL.—

7 “(A) REGULATIONS.—

8 “(i) IN GENERAL.—Not later than 3
9 years after the date of enactment of this
10 subsection, the Administrator shall promul-
11 gate regulations to ensure that fuel sold or
12 introduced into commerce in the United
13 States (except in noncontiguous States or
14 territories), on an annual average basis,
15 contains at least the applicable volume of
16 ultra-low carbon fuel determined in accord-
17 ance with subparagraph (B).

18 “(ii) PROVISIONS OF REGULATIONS.—
19 Regardless of the date of promulgation,
20 the regulations promulgated under clause
21 (i)—

22 “(I) shall contain compliance pro-
23 visions applicable to obligated parties,
24 as appropriate, to ensure that the re-

1 quirements of this paragraph are met;

2 but

3 “(II) shall not—

4 “(aa) restrict geographic

5 areas in which low-carbon trans-

6 portation fuel and ultra-low car-

7 bon fuel may be used; or

8 “(bb) impose any per-gallon

9 obligation for the use of those

10 fuels.

11 “(B) APPLICABLE VOLUME.—

12 “(i) CALENDAR YEARS 2012 THROUGH

13 2025.—For the purpose of subparagraph

14 (A), the applicable volume of Category I

15 ultra-low carbon fuel and Category II

16 ultra-low carbon fuel for any of calendar

17 years 2012 through 2025 shall be deter-

18 mined in accordance with the following

19 table:

Calendar Year	Total applicable volume of Category I ultra-low carbon fuel (billions of gallons)	Total applicable volume of Category II ultra-low carbon fuel (billions of gallons)
2012	0.5	0.25
2014	1.5	0.75
2016	3.0	1.5
2018	5.0	2.5
2020	8.0	4.0
2022	11.0	6.0
2025	13.0	8.0

1 “(ii) CALENDAR YEAR 2026 AND
2 THEREAFTER.—Subject to clause (iii), the
3 applicable volume for calendar year 2026
4 and each calendar year thereafter shall be
5 determined by the Administrator, in co-
6 ordination with the Secretary of Agri-
7 culture and the Secretary of Energy, based
8 on a review of the implementation of the
9 program under this subsection during the
10 period of calendar years 2012 through
11 2025, including a review of—

12 “(I) the impact of the use of Cat-
13 egory I ultra-low carbon fuel and Cat-
14 egory II ultra-low carbon fuel on—

15 “(aa) environmental sustain-
16 ability standards established
17 under subsection (t)(2)(B);

18 “(bb) energy security; and

19 “(cc) job creation; and

20 “(II) the expected annual rate of
21 future production of those fuels for
22 use as blending components or re-
23 placements for a certain quantity of
24 conventional fuel in the United States.

1 “(iii) MINIMUM APPLICABLE VOL-
2 UME.—For the purpose of subparagraph
3 (A), the applicable volume for calendar
4 year 2026 and each calendar year there-
5 after shall be equal to the product obtained
6 by multiplying—

7 “(I) the number of gallons of
8 conventional transportation fuel that
9 the Administrator estimates will be
10 sold or introduced into commerce dur-
11 ing the calendar year; and

12 “(II) the ratio that—

13 “(aa) for the applicable vol-
14 ume of Category I ultra-low car-
15 bon fuel, 13,000,000,000 gallons
16 of that fuel bears to the total
17 number of gallons of conventional
18 transportation fuel sold or intro-
19 duced into commerce in the
20 United States in calendar year
21 2025; and

22 “(bb) for the applicable vol-
23 ume of Category II ultra-low car-
24 bon fuel, 8,000,000,000 gallons
25 of that fuel bears to the total

1 number of gallons of conventional
2 transportation fuel sold or intro-
3 duced into commerce in the
4 United States in calendar year
5 2025.

6 “(3) APPLICABLE PERCENTAGES.—

7 “(A) PROVISION OF ESTIMATE OF VOL-
8 UMES OF CONVENTIONAL FUELS SALES.—Not
9 later than October 31 of each of calendar years
10 2011 through 2025, the Administrator of the
11 Energy Information Administration shall pro-
12 vide to the Administrator an estimate, with re-
13 spect to the following calendar year, of the vol-
14 umes of conventional fuels projected to be sold
15 or introduced into commerce in the United
16 States.

17 “(B) DETERMINATION OF APPLICABLE
18 PERCENTAGES.—

19 “(i) IN GENERAL.—Not later than
20 November 30 of each of calendar years
21 2012 through 2025, based on the estimate
22 provided under subparagraph (A), the Ad-
23 ministrator shall determine and publish in
24 the Federal Register, with respect to the
25 following calendar year, the fuel obligations

1 that would meet the requirements of para-
2 graph (2).

3 “(ii) REQUIRED ELEMENTS.—The fuel
4 obligations determined for a calendar year
5 under clause (i) shall—

6 “(I) subject to subparagraph (C),
7 be applicable to obligated parties, as
8 appropriate; and

9 “(II) be expressed in terms of a
10 volume percentage of conventional
11 fuels sold or introduced into com-
12 merce in the United States.

13 “(C) ADJUSTMENTS.—In determining the
14 applicable percentage for a calendar year, the
15 Administrator shall make adjustments to pre-
16 vent the imposition of redundant obligations on
17 any obligated party.

18 “(4) CREDIT PROGRAM.—

19 “(A) IN GENERAL.—The regulations pro-
20 mulgated pursuant to paragraph (2)(A) shall
21 provide for the generation of an appropriate
22 quantity of credits by obligated parties that in-
23 cludes a quantity of Category I ultra-low carbon
24 fuel or Category II ultra-low carbon fuel that is

greater than the applicable quantity required under paragraph (2).

“(B) USE OF CREDITS.—A person that generates a credit under subparagraph (A) may use the credit, or transfer all or a portion of the credit to another person, for the purpose of complying with regulations promulgated pursuant to paragraph (2)(A).

“(C) DURATION OF CREDITS.—A credit generated under this paragraph shall be valid—

“(i) during the calendar year in which the credit was generated; and

“(ii) for the 2-year period following that calendar year.

“(D) INABILITY TO GENERATE OR PURCHASE SUFFICIENT CREDITS.—The regulations promulgated pursuant to paragraph (2)(A) shall include provisions allowing any person that is unable to generate or purchase sufficient credits under subparagraph (A) to meet the requirements of paragraph (2) by carrying forward a credit generated during a previous year on the condition that the person, during the calendar year following the year in which the ultra-low carbon fuel deficit is created—

1 “(i) achieves compliance with the fuel
2 requirements under paragraph (2); and

3 “(ii) generates or purchases additional
4 credits under subparagraph (A) to offset
5 the deficit of the previous year.

6 “(5) WAIVERS.—

7 “(A) IN GENERAL.—The Administrator, in
8 consultation with the Secretary of Agriculture
9 and the Secretary of Energy, may waive the re-
10 quirements of paragraph (2), in whole or in
11 part, on receipt of a petition of 1 or more
12 States by reducing the national quantity of Cat-
13 egory I ultra-low carbon fuel or Category II
14 ultra-low carbon fuel in the conventional trans-
15 portation fuel pool required under paragraph
16 (2) based on a determination by the Adminis-
17 trator, after public notice and opportunity for
18 comment, that—

19 “(i) implementation of the require-
20 ment would severely harm the economy or
21 environment of a State, a region, or the
22 United States; or

23 “(ii) there is an inadequate domestic
24 supply of the applicable ultra-low carbon
25 fuel.

“(B) PETITIONS FOR WAIVERS.—Not later than 90 days after the date on which the Administrator receives a petition under subparagraph (A), the Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall approve or disapprove the petition.

“(C) TERMINATION OF WAIVERS.—

“(i) IN GENERAL.—Except as provided in clause (ii), a waiver under subparagraph (A) shall terminate on the date that is 1 year after the date on which the waiver is provided.

“(ii) EXCEPTION.—The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may extend a waiver under subparagraph (A), as the Administrator determines to be appropriate.”.

(b) CREDIT FOR CELLULOSIC ETHANOL.—Section 211(o)(4) of the Clean Air Act (42 U.S.C. 7545(o)(4)) is amended by inserting “through calendar year 2017,” before “1 gallon”.

1 (c) PERFORMANCE STANDARDS.—Section 211 of the
 2 Clean Air Act (42 U.S.C. 7545) is amended by inserting
 3 after subsection (s) the following:

4 “(t) PERFORMANCE STANDARDS.—

5 “(1) INTENSITY AND INDEX NUMBERS.—Not
 6 later than 2 years after the date of enactment of
 7 this subsection, the Administrator shall establish, for
 8 fuels blended with low-carbon fuel, and Category I
 9 ultra-low carbon fuel and Category II ultra-low car-
 10 bon fuel, as part of the renewable identification
 11 number program of the Environmental Protection
 12 Agency—

13 “(A) a carbon intensity number measured
 14 in the quantity of lifecycle greenhouse gas emis-
 15 sions per unit of energy provided by use of the
 16 fuel; and

17 “(B) a green index number representing
 18 the percentage reduction of greenhouse gas
 19 emissions achieved by the fuel as compared to
 20 the fuel emission baseline (as defined in section
 21 241).

22 “(2) ENVIRONMENTAL SUSTAINABILITY
 23 STUDY.—

24 “(A) IN GENERAL.—Not later than 3 years
 25 after the date of enactment of this subsection,

1 the Administrator, in conjunction with the Sec-
2 retary of Agriculture and the Secretary of En-
3 ergy, and based on recommendations issued by
4 the National Academy of Sciences, the Food
5 and Agricultural Policy Research Institute, and
6 not more than 2 other appropriate independent
7 research institutes, as determined by the Ad-
8 ministrator, shall establish a methodology to as-
9 sess and quantify environmental changes associ-
10 ated with an increase in the volume of fuels re-
11 quired by this section, as compared with the ef-
12 fects of an increase in conventional transpor-
13 tation fuels otherwise displaced by this section,
14 as applicable, for the purpose of negating over-
15 all adverse environmental impacts, particularly
16 with respect to the effects on or changes in—

17 “(i) land, air, and water quality, and
18 quality of other resources, including
19 changes resulting from production, han-
20 dling, and transportation of fuel (and asso-
21 ciated effects on public health and safety);

22 “(ii) land use patterns;

23 “(iii) the rate of deforestation, in the
24 United States and globally;

1 “(iv) areas containing significant con-
2 centrations of biodiversity values (including
3 endemism, endangered species, high spe-
4 cies richness, and refugia), including habi-
5 tats in which any alteration of the habitat
6 would render the habitat unable to support
7 most characteristic native species and eco-
8 logical processes;

9 “(v) land enrolled in the conservation
10 reserve program established under sub-
11 chapter B of chapter 1 of subtitle D of
12 title XII of the Food Security Act of 1985
13 (16 U.S.C. 3831 et seq.) or the wetlands
14 reserve program established under sub-
15 chapter C of chapter 1 of subtitle D of
16 title XII of the Food Security Act of 1985
17 (16 U.S.C. 3837 et seq.);

18 “(vi) the long-term capacity of the
19 United States to produce biomass feed-
20 stocks;

21 “(vii) the impact on areas at risk of
22 wildfire, including the vicinity of buildings
23 and other areas regularly occupied by peo-
24 ple, or of infrastructure;

1 “(viii) the effects on materials pro-
2 duced, acquired, transported, or processed
3 that would require an exemption from oth-
4 erwise applicable Federal law (including
5 regulations);

6 “(ix) the conversion of nonrenewable
7 biomass into biofuel;

8 “(x) the conversion of biowaste and
9 other wastes into fuels (as compared with
10 use of those wastes for other beneficial
11 purposes (such as recycling postconsumer
12 waste paper), and any potential for the
13 generation of toxic byproducts resulting
14 from that conversion (such as painted,
15 treated, or pressurized wood, or wood con-
16 taminated with plastic or metals);

17 “(xi) designated national interest land
18 (including land that is within the National
19 Wildlife Refuge System, the National Park
20 System, a National Monument, the Na-
21 tional Wilderness Preservation System, the
22 National Landscape Conservation System,
23 or the National Forest System, or that is
24 otherwise under the administrative juris-
25 diction of the Secretary of the Interior or

1 Secretary of Agriculture or protected by
2 Federal law); and

3 “(xii) such other matters or activities
4 as are identified by the Administrator.

5 “(B) ENVIRONMENTAL SUSTAINABILITY
6 STANDARDS.—Not later than January 1, 2012,
7 the Administrator, in conjunction with the Sec-
8 retary of Agriculture and the Secretary of En-
9 ergy, shall, based on the methodology estab-
10 lished under subparagraph (A), promulgate reg-
11 ulations to establish a set of standards to mini-
12 mize, to the maximum extent practicable, the
13 negative environmental impacts and ensure long
14 term resource sustainability from the sourcing
15 and production of low-carbon fuels.

16 “(u) STATE AUTHORITY.—If the Administrator de-
17 termines that a State law (including a regulation) provides
18 for equivalent or greater greenhouse gas emission reduc-
19 tions than any provision in section 250 or subsection (p)
20 or (t) of this section, the State law shall apply in the State
21 in lieu of the provision.”.

22 (d) PENALTIES AND ENFORCEMENT.—Section
23 211(d) of the Clean Air Act (42 U.S.C. 7545(d)) is
24 amended—

1 (1) in paragraph (1), by striking “or (o)” each
2 place it appears and inserting “(o), or (p)”; and

3 (2) in paragraph (2), by striking “and (o)”
4 each place it appears and inserting “(o), and (p)”.

5 (e) TECHNICAL AMENDMENTS.—Section 211 of the
6 Clean Air Act (42 U.S.C. 7545) is amended—

7 (1) in subsection (i)(4), by striking “section
8 324” each place it appears and inserting “section
9 325”;

10 (2) in subsection (k)(10), by indenting subpara-
11 graphs (E) and (F) appropriately;

12 (3) in subsection (n), by striking “section
13 219(2)” and inserting “section 216(2)”; and

14 (4) in subsection (s)(1), by striking “this sub-
15 title” and inserting “this part”.

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