To amend the Clean Air Act to reduce emissions of carbon dioxide, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JANUARY 16, 2007

Mr. Sanders (for himself, Mrs. Boxer, Mr. Kennedy, Mr. Menendez, Mr. Lautenberg, Mr. Leahy, Mr. Reed, Mr. Akaka, Mr. Inouye, Mr. Feingold, and Mr. Whitehouse) 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 emissions of carbon dioxide, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Global Warming Pollution Reduction Act”.

SEC. 2. GLOBAL WARMING POLLUTION EMISSION REDUCTIONS.

The Clean Air Act (42 U.S.C. 7401 et seq.) is amended by adding at the end the following:
"TITLE VII—COMPREHENSIVE GLOBAL WARMING POLLUTION REDUCTIONS

Sec. 701. Findings.

Sec. 702. Purposes.

Sec. 703. Definitions.

Sec. 704. Global warming pollution emission reductions.

Sec. 705. Conditions for accelerated global warming pollution emission reduction.

Sec. 706. Use of allowances for transition assistance and other purposes.

Sec. 707. Vehicle emission standards.

Sec. 708. Emission standards for electric generation units.

Sec. 709. Low-carbon generation requirement.

Sec. 710. Geological disposal of global warming pollutants.

Sec. 711. Research and development.


Sec. 713. Renewable portfolio standard.

Sec. 714. Standards to account for biological sequestration of carbon.

Sec. 715. Global warming pollution reporting.

Sec. 716. Clean energy technology deployment in developing countries.

Sec. 717. Paramount interest waiver.

Sec. 718. Effect on other law.

SEC. 701. FINDINGS.

"Congress finds that—

"(1) global warming poses a significant threat to the national security and economy of the United States, public health and welfare, and the global environment;

"(2) due largely to an increased use of energy from fossil fuels, human activities are primarily responsible for the release of carbon dioxide and other heat-trapping global warming pollutants that are accumulating in the atmosphere and causing surface air and subsurface ocean temperatures to rise;
“(3) as of the date of enactment of this title, atmospheric concentrations of carbon dioxide are 35 percent higher than those concentrations were 150 years ago, at 378 parts per million compared to 280 parts per million;

“(4) the United States emits more global warming pollutants than any other country, and United States carbon dioxide emissions have increased by an average of 1.3 percent annually since 1990;

“(5)(A) during the past 100 years, global temperatures have risen by 1.44 degrees Fahrenheit; and

“(B) from 1970 to the present, those temperatures have risen by almost 1 degree Fahrenheit;

“(6) 8 years during the 10-year period beginning January 1, 1996, and ending December 31, 2005, were among the 10 warmest years on record;

“(7) average temperatures in the Arctic have increased by 4 to 7 degrees Fahrenheit during the past 50 years;

“(8) global warming has caused—

“(A) ocean temperatures to increase, resulting in rising sea levels, extensive bleaching of coral reefs worldwide, and an increase in the intensity of tropical storms;
“(B) the retreat of Arctic sea ice by an average of 9 percent per decade since 1978;
“(C) the widespread thawing of permafrost in polar, subpolar, and mountainous regions;
“(D) the redistribution and loss of species; and
“(E) the rapid shrinking of glaciers;
“(9) the United States must adopt a comprehensive and effective national program of mandatory limits and incentives to reduce global warming pollution emissions into the atmosphere;
“(10) at the current rate of emission, global warming pollution concentrations in the atmosphere could reach more than 600 parts per million in carbon dioxide equivalent, and global average mean temperature could rise an additional 2.7 to 11 degrees Fahrenheit, by the end of the century;
“(11) although an understanding of all details of the Earth system is not yet complete, present knowledge indicates that potential future temperature increases could result in—
“(A) the further or complete melting of the Antarctic and Greenland ice sheets;
“(B) the disruption of the North-Atlantic Thermohaline Circulation (commonly known as the ‘Gulf Stream’);

“(C) the extinction of species; and

“(D) large-scale disruptions of the natural systems that support life;

“(12) there exists an array of technological options for use in reducing global warming pollution emissions, and significant reductions can be attained using a portfolio of options that will not adversely impact the economy;

“(13) the ingenuity of the people of the United States will allow the Nation to become a leader in solving global warming; and

“(14) it should be a goal of the United States to achieve a reduction in global warming pollution emissions in the United States—

“(A) to ensure that the average global temperature does not increase by more than 3.6 degrees Fahrenheit (2 degrees Celsius); and

“(B) to facilitate the achievement of an average global atmospheric concentration of global warming pollutants that does not exceed 450 parts per million in carbon dioxide equivalent.
“SEC. 702. PURPOSES.

“The purposes of this title are—

“(1) to achieve a reduction in global warming pollution emissions compatible with ensuring that—

“(A) the average global temperature does not increase by more than 3.6 degrees Fahrenheit (2 degrees Celsius) above the preindustrial average; and

“(B) total average global atmospheric concentrations of global warming pollutants do not exceed 450 parts per million in carbon dioxide equivalent;

“(2) to reduce by calendar year 2050 the aggregate net level of global warming pollution emissions of the United States to a level that is 80 percent below the aggregate net level of global warming pollution emissions for calendar year 1990;

“(3) to allow for an acceleration of reductions in global warming pollution emissions to prevent—

“(A) average global temperature from increasing by more than 3.6 degrees Fahrenheit (2 degrees Celsius) above the preindustrial average; or

“(B) global atmospheric concentrations of global warming pollutants from exceeding 450 parts per million;
“(4) to establish a motor vehicle global warming pollution emission requirement;

“(5) to require electric generation units to meet a global warming pollution emission standard;

“(6) to establish rules for the safe geological sequestration of carbon dioxide;

“(7) to encourage energy efficiency and the use of renewable energy by establishing a renewable portfolio standard and an energy efficiency portfolio standard;

“(8) to provide for research relating to, and development of, the technologies to control global warming pollution emissions;

“(9) to position the United States as the world leader in reducing the risk of the potentially devastating, wide-ranging impacts associated with global warming; and

“(10) to promote, through leadership by the United States, accelerated reductions in global warming pollution from other countries with significant global warming pollution emissions.

“SEC. 703. DEFINITIONS.

“In this title:

“(1) ACADEMY.—The term ‘Academy’ means the National Academy of Sciences.
“(2) Carbon dioxide equivalent.—The term ‘carbon dioxide equivalent’ means, for each global warming pollutant, the quantity of the global warming pollutant that makes the same contribution to global warming as 1 metric ton of carbon dioxide, as determined by the Administrator, taking into account the study and report described in section 705(a).

“(3) Facility.—The term ‘facility’ means all buildings, structures, or installations that are—

“(A) located on 1 or more contiguous or adjacent properties under common control of the same persons; and

“(B) located in the United States.

“(4) Global warming pollutant.—The term ‘global warming pollutant’ means—

“(A) carbon dioxide;

“(B) methane;

“(C) nitrous oxide;

“(D) hydrofluorocarbons;

“(E) perfluorocarbons;

“(F) sulfur hexafluoride; and

“(G) any other anthropogenically-emitted gas that the Administrator, after notice and
comment, determines to contribute to global warming.

“(5)GLOBAL WARMING POLLUTION.—The term ‘global warming pollution’ means any combination of 1 or more global warming pollutants emitted into the ambient air or atmosphere.

“(6)MARKET-BASED PROGRAM.—The term ‘market-based program’ means a program that places an absolute limit on the aggregate net global warming pollution emissions of 1 or more sectors of the economy of the United States, while allowing the transfer or sale of global warming pollution emission allowances.

“(7)NAS REPORT.—The term ‘NAS report’ means a report completed by the Academy under subsection (a) or (b) of section 705.

“SEC. 704. GLOBAL WARMING POLLUTION EMISSION REDUCTIONS.

“(a)EMISSION REDUCTION GOAL.—Congress declares that—

“(1) it shall be the goal of the United States, acting in concert with other countries that emit global warming pollutants, to achieve a reduction in global warming pollution emissions—
“(A) to ensure that the average global temperature does not increase by more than 3.6 degrees Fahrenheit (2 degrees Celsius); and

“(B) to facilitate the achievement of an average global atmospheric concentration of global warming pollutants that does not exceed 450 parts per million in carbon dioxide equivalent; and

“(2) in order to achieve the goal described in paragraph (1), the United States shall reduce the global warming pollution emissions of the United States by a quantity that is proportional to the share of the United States of the reductions that are necessary—

“(A) to ensure that the average global temperature does not increase more than 3.6 degrees Fahrenheit (2 degrees Celsius); and

“(B) to stabilize average global warming pollution concentrations globally at or below 450 parts per million in carbon dioxide equivalent.

“(b) EMISSION REDUCTION MILESTONES FOR 2020.—

“(1) IN GENERAL.—To achieve the goal described in subsection (a)(1), not later than 2 years
after the date of enactment of this title, after an op-
portunity for public notice and comment, the Admin-
istrator shall promulgate any rules that are nec-
essary to reduce, by not later than January 1, 2020,
the aggregate net levels of global warming pollution
emissions of the United States to the aggregate net
level of those global warming pollution emissions
during calendar year 1990.

“(2) Achievement of Milestones.—To the
maximum extent practicable, the reductions de-
scribed in paragraph (1) shall be achieved through
an annual reduction in the aggregate net level of
global warming pollution emissions of the United
States of approximately 2 percent for each of cal-
endar years 2010 through 2020.

“(c) Emission Reduction Milestones for 2030,
2040, and 2050.—Except as described in subsection (d),
not later than January 1, 2018, after an opportunity for
public notice and comment, the Administrator shall pro-
mulgate any rules that are necessary to reduce the aggreg-
ate net levels of global warming pollution emissions of
the United States—

“(1) by calendar year 2030, by 1/3 of 80 percent
of the aggregate net level of global warming pollu-
tion emissions of the United States during calendar year 1990;

“(2) by calendar year 2040, by 2/3 of 80 percent of the aggregate net level of the global warming pollution emissions of the United States during calendar year 1990; and

“(3) by calendar year 2050, by 80 percent of the aggregate net level of global warming pollution emissions of the United States during calendar year 1990.

“(d) ACCELERATED EMISSION REDUCTION MILESTONES.—If an NAS report determines that any of the events described in section 705(a)(2) have occurred, or are more likely than not to occur in the foreseeable future, not later than 2 years after the date of completion of the NAS report, the Administrator, after an opportunity for public notice and comment and taking into account the new information reported in the NAS report, may adjust the milestones under this section and promulgate any rules that are necessary—

“(1) to reduce the aggregate net levels of global warming pollution emissions from the United States on an accelerated schedule; and

“(2) to minimize the effects of rapid climate change and achieve the goals of this title.
“(e) REPORT ON ACHIEVEMENT OF MILESTONES.—

If an NAS report determines that a milestone under paragraph (1) or (2) of subsection (c) cannot be achieved because of technological infeasibility, the Administrator shall submit to Congress a notification of that determination.

“(f) EMISSION REDUCTION POLICIES.—

“(1) IN GENERAL.—In implementing subsections (a) through (e), the Administrator may establish 1 or more market-based programs.

“(2) MARKET-BASED PROGRAM POLICIES.—

“(A) IN GENERAL.—In implementing any market-based program, the Administrator shall allocate to households, communities, and other entities described in section 706(a) any global warming pollution emission allowances that are not allocated to entities covered under the emission limitation.

“(B) RECOGNITION OF EMISSION REDUCTIONS MADE IN COMPLIANCE WITH STATE AND LOCAL LAWS.—A market-based program may recognize reductions of global warming pollution emissions made before the effective date of the market-based program if the Administrator determines that—
“(i)(I) the reductions were made in accordance with a State or local law;

“(II) the State or local law is at least as stringent as the rules established for the market-based program under paragraph (1); and

“(III) the reductions are at least as verifiable as reductions made in accordance with those rules; or

“(ii) for any given entity subject to the market-based program, the entity demonstrates that the entity has made entity-wide reductions of global warming pollution emissions before the effective date of the market-based program, but not earlier than calendar year 1992, that are at least as verifiable as reductions made in accordance with the rules established for the market-based program under paragraph (1).

“(C) PUBLICATION.—If the Administrator determines that it is necessary to establish a market-based program, the Administrator shall publish notice of the determination in the Federal Register.
“(D) LIMITATIONS ON MARKET-BASED
PROGRAMS.—

“(i) DEFINITIONS.—In this subpara-
graph:

“(I) ANNUAL ALLOWANCE
PRICE.—The term ‘annual allowance
price’ means the average market price
of global warming pollution emission
allowances for a calendar year.

“(II) DECLINING EMISSIONS CAP
WITH A TECHNOLOGY-INDEXED STOP
PRICE.—The term ‘declining emis-
sions cap with a technology-indexed
stop price’ means a feature of a mar-
ket-based program for an industrial
sector, or on an economy-wide basis,
under which the emissions cap de-
clines by a fixed percentage each cal-
endar year or, during any year in
which the annual allowance price ex-
ceeds the technology-indexed stop
price, the emissions cap remains the
same until the occurrence of the ear-
lier of—
“(aa) the date on which the annual allowance price no longer exceeds the technology-indexed stop price; or

“(bb) the date on which a period of 3 years has elapsed during which the emissions cap has remained unchanged.

“(III) EMISSIONS CAP.—The term ‘emissions cap’ means the total number of global warming pollution emission allowances issued for a calendar year.

“(IV) TECHNOLOGY-INDEXED STOP PRICE.—The term ‘technology-indexed stop price’ means a price per ton of global warming pollution emissions determined annually by the Administrator that is not less than the technology-specific average cost of preventing the emission of 1 ton of global warming pollutants through commercial deployment of any available zero-carbon or low-carbon technologies. With respect to the elec-
tricity sector, those technologies shall consist of—

“(aa) wind-generated electricity;

“(bb) photovoltaic-generated electricity;

“(cc) geothermal energy;

“(dd) solar thermally-generated energy;

“(ee) wave-based forms of energy;

“(ff) any fossil fuel-based electric generating technology emitting less than 250 pounds per megawatt hour; and

“(gg) any zero-carbon-emitting electric generating technology that does not generate radioactive waste.

“(ii) IMPLEMENTATION.—In implementing any market-based program under this Act, for the period prior to January 1, 2020, the Administrator shall consider the impact on the economy of the United States of implementing the program with a
declining emissions cap through the use of a technology-indexed stop price.

“(iii) Other Emitting Sectors.—The Administrator may consider the use of a declining emissions cap with a technology-indexed stop price, or similar approaches, for other emitting sectors based on low-carbon or zero-carbon technologies, including—

“(I) biofuels;
“(II) hydrogen power; and
“(III) other sources of energy and transportation fuel.

“(g) Cost-Effectiveness.—In promulgating regulations under this section, the Administrator shall select the most cost-effective options for global warming pollution control and emission reduction strategies.

“SEC. 705. CONDITIONS FOR ACCELERATED GLOBAL WARMING POLLUTION EMISSION REDUCTION.

“(a) Report on Global Change Events by the Academy.—

“(1) In General.—The Administrator shall offer to enter into a contract with the Academy under which the Academy, not later than 2 years after the date of enactment of this title, and every
3 years thereafter, shall submit to Congress and the Administrator a report that describes whether any of the events described in paragraph (2)—

“(A) have occurred or are more likely than not to occur in the foreseeable future; and

“(B) in the judgment of the Academy, are the result of anthropogenic climate change.

“(2) EVENTS.—The events referred to in paragraph (1) are—

“(A) the exceedance of an atmospheric concentration of global warming pollutants of 450 parts per million in carbon dioxide equivalent; and

“(B) an increase of global average temperatures in excess of 3.6 degrees Fahrenheit (2 degrees Celsius) above the preindustrial average.

“(b) TECHNOLOGY REPORTS.—

“(1) DEFINITION OF TECHNOLOGICALLY INFEASIBLE.—In this subsection, the term ‘technologically infeasible’, with respect to a technology, means that the technology—

“(A) will not be demonstrated beyond laboratory-scale conditions;

“(B) would be unsafe;
“(C) would not reliably reduce global warming pollution emissions; or

“(D) would prevent the activity to which the technology applies from meeting or performing its primary purpose (such as generating electricity or transporting goods or individuals).

“(2) REPORTS.—The Administrator shall offer to enter into a contract with the Academy under which the Academy, not later than 2 years after the date of enactment of this title and every 3 years thereafter, shall submit to Congress and the Administrator a report that describes or analyzes—

“(A) the status of current global warming pollution emission reduction technologies, including—

“(i) technologies for capture and disposal of global warming pollutants;

“(ii) efficiency improvement technologies;

“(iii) zero-global-warming-pollution-emitting energy technologies; and

“(iv) above- and below-ground biological sequestration technologies;
“(B) whether any of the requirements under this title (including regulations promulgated under this title) mandate a level of emission control or reduction that, based on available or expected technology, will be technologically infeasible at the time at which the requirements become effective;

“(C) the projected date on which any technology determined to be technologically infeasible will become technologically feasible;

“(D) whether any technology determined to be technologically infeasible cannot reasonably be expected to become technologically feasible prior to calendar year 2050; and

“(E) the costs of available alternative global warming pollution emission reduction strategies that could be used or pursued in lieu of any technologies that are determined to be technologically infeasible.

“(3) REPORT EVALUATING 2050 MILESTONE.—Not later than December 31, 2037, the Administrator shall offer to enter into a contract with the Academy under which, not later than December 31, 2039, the Academy shall prepare and submit to Congress and the Administrator a report on the appro-
priateness of the milestone described in section 704(e)(3), taking into consideration—

“(A) information that was not available as of the date of enactment of this title; and

“(B) events that have occurred since that date relating to—

“(i) climate change;

“(ii) climate change technologies; and

“(iii) national and international climate change commitments.

“(c) ADDITIONAL ITEMS IN NAS REPORT.—In addition to the information described in subsection (a)(1) that is required to be included in the NAS report, the Academy shall include in the NAS report—

“(1) an analysis of the trends in annual global warming pollution emissions by the United States and the other countries that collectively account for more than 90 percent of global warming pollution emissions (including country-specific inventories of global warming pollution emissions and facility-specific inventories of global warming pollution emissions in the United States);

“(2) an analysis of the trends in global warming pollution concentrations (including observed at-
mospheric concentrations of global warming pollutants);

“(3) a description of actual and projected global change impacts that may be caused by anthropogenic global warming pollution emissions, in addition to the events described in subsection (a)(2); and

“(4) such other information as the Academy determines to be appropriate.

“SEC. 706. USE OF ALLOWANCES FOR TRANSITION ASSISTANCE AND OTHER PURPOSES.

“(a) REGULATIONS GOVERNING ALLOCATION OF ALLOWANCES FOR TRANSITION ASSISTANCE TO INDIVIDUALS AND ENTITIES.—

“(1) IN GENERAL.—In implementing any market-based program, the Administrator may promulgate regulations providing for the allocation of global warming pollution emission allowances to the individuals and entities, or for the purposes, specified in subsection (b).

“(2) REQUIREMENTS.—Regulations promulgated under paragraph (1) may, as the Administrator determines to be necessary, provide for the appointment of 1 or more trustees—
“(A) to receive emission allowances for the benefit of households, communities, and other entities described in paragraph (1);

“(B) to sell the emission allowances at fair market value; and

“(C) to distribute the proceeds of any sale of emission allowances to the appropriate beneficiaries.

“(b) ALLOCATION FOR TRANSITION ASSISTANCE.—The Administrator may allocate emission allowances, in accordance with regulations promulgated under subsection (a), to—

“(1) communities, individuals, and companies that have experienced disproportionate adverse impacts as a result of—

“(A) the transition to a lower carbon-emitting economy; or

“(B) global warming;

“(2) owners and operators of highly energy-efficient buildings, including—

“(A) residential users;

“(B) producers of highly energy-efficient products; and

“(C) entities that carry out energy-efficiency improvement projects pursuant to section
that result in consumer-side reductions in electricity use;

“(3) entities that will use the allowances for the purpose of carrying out geological sequestration of carbon dioxide produced by an anthropogenic global warming pollution emission source in accordance with requirements established by the Administrator;

“(4) such individuals and entities as the Administrator determines to be appropriate, for use in carrying out projects to reduce net carbon dioxide emissions through above-ground and below-ground biological carbon dioxide sequestration (including sequestration in forests, forest soils, agricultural soils, rangeland, or grassland in the United States);

“(5) such individuals and entities (including fish and wildlife agencies) as the Administrator determines to be appropriate, for use in carrying out projects to protect and restore ecosystems (including fish and wildlife) affected by climate change; and

“(6) manufacturers producing consumer products that result in substantially reduced global warming pollution emissions, for use in funding rebates for purchasers of those products.

“SEC. 707. VEHICLE EMISSION STANDARDS.

“(a) VEHICLES UNDER 10,000 POUNDS.—
“(1) IN GENERAL.—Not later than January 1, 2010, the Administrator shall promulgate regulations requiring each fleet of automobiles sold by a manufacturer in the United States beginning in model year 2016 to meet the standards for global warming pollution emissions described in paragraph (2).

“(2) EMISSION STANDARDS.—The average global warming pollution emissions of a vehicle fleet described in paragraph (1) shall not exceed—

“(A) 205 carbon dioxide equivalent grams per mile for automobiles with—

“(i) a gross vehicle weight of not more than 8,500 pounds; and

“(ii) a loaded vehicle weight of not more than 3,750 pounds;

“(B) 332 carbon dioxide equivalent grams per mile for—

“(i) automobiles with—

“(I) a gross vehicle weight of not more than 8,500 pounds; and

“(II) a loaded vehicle weight of more than 3,750 pounds; and

“(ii) medium-duty passenger vehicles; and
“(C) 405 carbon dioxide equivalent grams per mile for vehicles—

“(i) with a gross vehicle weight of between 8,501 pounds and 10,000 pounds;

and

“(ii) that are not medium-duty passenger vehicles.

“(3) HEIGHTENED STANDARDS.—After model year 2016, the Administrator may promulgate regulations that increase the stringency of emission standards described in paragraph (2) as necessary to meet the emission reduction goal described in section 704(e)(3).

“(b) HIGHWAY VEHICLES OVER 10,000 POUNDS.—

“(1) IN GENERAL.—Not later than January 1, 2010, the Administrator shall promulgate regulations requiring each fleet of highway vehicles over 10,000 pounds sold by a manufacturer in the United States beginning in model year 2020 to meet the standards for global warming pollution emissions described in paragraph (2).

“(2) EMISSION STANDARDS.—The average global warming pollution emissions of a vehicle fleet described in paragraph (1) shall not exceed—
“(A) 850 carbon dioxide equivalent grams per mile for highway vehicles with a gross vehicle weight rating between 10,001 pounds and 26,000 pounds; and

“(B) 1,050 carbon dioxide equivalent grams per mile for highway vehicles with a gross vehicle weight rating of more than 26,000 pounds.

“(3) HEIGHTENED STANDARDS.—After model year 2020, the Administrator may promulgate regulations that increase the stringency of emission standards described in paragraph (2) as necessary to meet the emission reduction goal described in section 704(a)(1).

“(c) ADJUSTMENT OF REQUIREMENTS.—Taking into account appropriate lead times for vehicle manufacturers, if the Academy determines, pursuant to an NAS report, that a vehicle emission standard under this section is or will be technologically infeasible as of the effective date of the standard, the Administrator may, by regulation, modify the requirement to take into account the determination of the Academy.

“(d) STUDY.—

“(1) IN GENERAL.—Not later than January 1, 2008, the Administrator shall enter into a contract
with the Academy under which the Academy shall conduct a study of, and submit to the Administrator a report on, the potential contribution of the non-highway portion of the transportation sector toward meeting the emission reduction goal described in section 704(a)(1).

“(2) REQUIREMENTS.—The study shall analyze—

“(A) the technological feasibility and cost-effectiveness of global warming pollution reductions from the non-highway sector; and

“(B) the overall potential contribution of that sector in terms of emissions, in meeting the emission reduction goal described in section 704(a)(1).

“SEC. 708. EMISSION STANDARDS FOR ELECTRIC GENERATION UNITS.

“(a) INITIAL STANDARD.—

“(1) IN GENERAL.—Not later than 2 years after the date of enactment of this title, the Administrator shall, by regulation, require each unit that is designed and intended to provide electricity at a unit capacity factor of at least 60 percent and that begins operation after December 31, 2011, to meet the standard described in paragraph (2).
“(2) STANDARD.—Beginning on December 31, 2015, a unit described in paragraph (1) shall meet a global warming pollution emission standard that is not higher than the emission rate of a new combined cycle natural gas generating unit.

“(3) MORE STRINGENT REQUIREMENTS.—For the period beginning on January 1 of the calendar year following the effective date of the regulation described in paragraph (1) and ending on December 31, 2029, the Administrator may increase the stringency of the global warming pollution emission standard described in paragraph (1) with respect to electric generation units described in that paragraph.

“(b) FINAL STANDARD.—Not later than December 31, 2030, the Administrator shall require each electric generation unit, regardless of when the unit began to operate, to meet the applicable emission standard under subsection (a).

“(c) ADJUSTMENT OF REQUIREMENTS.—If the Academy determines, pursuant to section 705, that a requirement of this section is or will be technologically infeasible at the time at which the requirement becomes effective, the Administrator, may, by regulation, adjust or delay the
effective date of the requirement as is necessary to take into consideration the determination of the Academy.

“SEC. 709. LOW-CARBON GENERATION REQUIREMENT.

“(a) DEFINITIONS.—In this section:

“(1) BASE QUANTITY OF ELECTRICITY.—The term ‘base quantity of electricity’ means the total quantity of electricity produced for sale by a covered generator during the calendar year immediately preceding a compliance year from coal, petroleum coke, lignite, or any combination of those fuels.

“(2) COVERED GENERATOR.—The term ‘covered generator’ means an electric generating unit that—

“(A) has a rated capacity of 25 megawatts or more; and

“(B) has an annual fuel input at least 50 percent of which is provided by coal, petroleum coke, lignite, or any combination of those fuels.

“(3) LOW-CARBON GENERATION.—The term ‘low-carbon generation’ means electric energy generated from an electric generating unit at least 50 percent of the annual fuel input of which, in any year—
“(A) is provided by coal, petroleum coke, lignite, biomass, or any combination of those fuels; and

“(B) results in an emission rate into the atmosphere of not more than 250 pounds of carbon dioxide per megawatt-hour (after adjustment for carbon dioxide from the electric generating unit that is geologically sequestered in a geological repository approved by the Administrator pursuant to subsection (e)).

“(4) Program.—The term ‘program’ means the low-carbon generation credit trading program established under subsection (d)(1).

“(b) Requirement.—

“(1) Calendar years 2015 through 2020.—

Of the base quantity of electricity produced for sale by a covered generator for a calendar year, the covered generator shall provide a minimum percentage of that base quantity of electricity for the calendar year from low-carbon generation, as specified in the following table:

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<th>Minimum annual percentage</th>
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“(2) Calendar Years 2021 through 2025.—
For each of calendar years 2021 through 2025, the
Administrator may increase the minimum percent-
age of the base quantity of electricity from low-car-
bon generation described in paragraph (1) by up to
2 percentage points from the previous year, as the
Administrator determines to be necessary to achieve
the emission reduction goal described in section
704(a)(1).

“(3) Calendar Years 2026 through 2030.—
For each of calendar years 2026 through 2030, the
Administrator may increase the minimum percent-
age of the base quantity of electricity from low-car-
bon generation described in paragraph (1) by up to
3 percentage points from the previous year, as the
Administrator determines to be necessary to achieve
the emission reduction goal described in section
704(a)(1).

“(c) Means of Compliance.—An owner or operator
of a covered generator shall comply with subsection (b)
by—

“(1) generating electric energy using low-carbon
generation;
“(2) purchasing electric energy generated by low-carbon generation;

“(3) purchasing low-carbon generation credits issued under the program; or

“(4) undertaking a combination of the actions described in paragraphs (1) through (3).

“(d) LOW-CARBON GENERATION CREDIT TRADING PROGRAM.—

“(1) IN GENERAL.—Not later than January 1, 2008, the Administrator shall establish, by regulation after notice and opportunity for comment, a low-carbon generation trading program to permit an owner or operator of a covered generator that does not generate or purchase enough electric energy from low-carbon generation to comply with subsection (b) to achieve that compliance by purchasing sufficient low-carbon generation credits.

“(2) REQUIREMENTS.—As part of the program, the Administrator shall—

“(A) issue to producers of low-carbon generation, on a quarterly basis, a single low-carbon generation credit for each kilowatt hour of low-carbon generation sold during the preceding quarter; and
“(B) ensure that a kilowatt hour, including
the associated low-carbon generation credit,
shall be used only once for purposes of compli-
ance with subsection (b).

“(e) ENFORCEMENT.—An owner or operator of a cov-
ered generator that fails to comply with subsection (b)
shall be subject to a civil penalty in an amount equal to
the product obtained by multiplying—

“(1) the number of kilowatt-hours of electric
energy sold to electric consumers in violation of sub-
section (b); and

“(2) the greater of—

“(A) 2.5 cents (as adjusted under sub-
section (g)); or

“(B) 200 percent of the average market
value of those low-carbon generation credits
during the year in which the violation occurred.

“(f) EXEMPTION.—This section shall not apply for
any calendar year to an owner or operator of a covered
generator that sold less than 40,000 megawatt-hours of
electric energy produced from covered generators during
the preceding calendar year.

“(g) INFLATION ADJUSTMENT.—Not later than De-
cember 31, 2008, and annually thereafter, the Adminis-
trator shall adjust the amount of the civil penalty for each
kilowatt-hour calculated under subsection (c)(2) to reflect changes for the 12-month period ending on the preceding November 30 in the Consumer Price Index for All Urban Consumers published by the Bureau of Labor Statistics of the Department of Labor.

“(h) TECHNOLOGICAL INFEASIBILITY.—If the Academy determines, pursuant to section 705, that the schedule for compliance described in subsection (b) is or will be technologically infeasible for covered generators to meet, the Administrator may, by regulation, adjust the schedule as the Administrator determines to be necessary to take into account the consideration of the determination of the Academy.

“(i) TERMINATION OF AUTHORITY.—This section and the authority provided by this section terminate on December 31, 2030.

“SEC. 710. GEOLOGICAL DISPOSAL OF GLOBAL WARMING POLLUTANTS.

“(a) GEOLOGICAL CARBON DIOXIDE DISPOSAL DEPLOYMENT PROJECTS.—

“(1) IN GENERAL.—The Administrator shall establish a competitive grant program to provide grants to 5 entities for the deployment of projects to geologically dispose of carbon dioxide (referred to in
this subsection as ‘geological disposal deployment projects’).

“(2) LOCATION.—Each geological disposal deployment project shall be conducted in a geologically distinct location in order to demonstrate the suitability of a variety of geological structures for carbon dioxide disposal.

“(3) COMPONENTS.—Each geological disposal deployment project shall include an analysis of—

“(A) mechanisms for trapping the carbon dioxide to be geologically disposed;

“(B) techniques for monitoring the geologically disposed carbon dioxide;

“(C) public response to the geological disposal deployment project; and

“(D) the permanency of carbon dioxide storage in geological reservoirs.

“(4) REQUIREMENTS.—

“(A) IN GENERAL.—The Administrator shall establish—

“(i) appropriate conditions for environmental protection with respect to geological disposal deployment projects to protect public health and the environment; and
“(ii) requirements relating to applications for grants under this subsection.

“(B) RULEMAKING.—The establishment of requirements under subparagraph (A) shall not require a rulemaking.

“(C) MINIMUM REQUIREMENTS.—At a minimum, each application for a grant under this subsection shall include—

“(i) a description of the geological disposal deployment project proposed in the application;

“(ii) an estimate of the quantity of carbon dioxide to be geologically disposed over the life of the geological disposal deployment project; and

“(iii) a plan to collect and disseminate data relating to each geological disposal deployment project to be funded by the grant.

“(5) PARTNERS.—An applicant for a grant under this subsection may carry out a geological disposal deployment project under a pilot program in partnership with 1 or more public or private entities.
“(6) SELECTION CRITERIA.—In evaluating applications under this subsection, the Administrator shall—

“(A) consider the previous experience of each applicant with similar projects; and

“(B) give priority consideration to applications for geological disposal deployment projects that—

“(i) offer the greatest geological diversity from other projects that have previously been approved;

“(ii) are located in closest proximity to a source of carbon dioxide;

“(iii) make use of the most affordable source of carbon dioxide;

“(iv) are expected to geologically dispose of the largest quantity of carbon dioxide;

“(v) are combined with demonstrations of advanced coal electricity generation technologies;

“(vi) demonstrate the greatest commitment on the part of the applicant to ensure funding for the proposed demonstration project and the greatest likelihood
that the demonstration project will be maintained or expanded after Federal assistance under this subsection is completed; and

“(vii) minimize any adverse environmental effects from the project.

“(7) PERIOD OF GRANTS.—

“(A) IN GENERAL.—A geological disposal deployment project funded by a grant under this subsection shall begin construction not later than 3 years after the date on which the grant is provided.

“(B) TERM.—The Administrator shall not provide grant funds to any applicant under this subsection for a period of more than 5 years.

“(8) TRANSFER OF INFORMATION AND KNOWLEDGE.—The Administrator shall establish mechanisms to ensure that the information and knowledge gained by participants in the program under this subsection are published and disseminated, including to other applicants that submitted applications for a grant under this subsection.

“(9) SCHEDULE.—

“(A) PUBLICATION.—Not later than 180 days after the date of enactment of this title,
the Administrator shall publish in the Federal Register, and elsewhere as appropriate, a request for applications to carry out geological disposal deployment projects.

“(B) DATE FOR APPLICATIONS.—An application for a grant under this subsection shall be submitted not later than 180 days after the date of publication of the request under subparagraph (A).

“(C) SELECTION.—After the date by which applications for grants are required to be submitted under subparagraph (B), the Administrator, in a timely manner, shall select, after peer review and based on the criteria under paragraph (6), those geological disposal deployment projects to be provided a grant under this subsection.

“(b) INTERIM STANDARDS.—Not later than 3 years after the date of enactment of this title, the Administrator, in consultation with the Secretary of Energy, shall, by regulation, establish interim geological carbon dioxide disposal standards that address—

“(1) site selection;

“(2) permitting processes;

“(3) monitoring requirements;
“(4) public participation; and

“(5) such other issues as the Administrator and
the Secretary of Energy determine to be appro-
priate.

“(c) Final Standards.—Not later than 6 years
after the date of enactment of this title, taking into ac-
count the results of geological disposal deployment
projects carried out under subsection (a), the Adminis-
trator shall, by regulation, establish final geological carbon
dioxide disposal standards.

“(d) Considerations.—In developing standards
under subsections (b) and (c), the Administrator shall con-
sider the experience in the United States in regulating—

“(1) underground injection of waste;

“(2) enhanced oil recovery;

“(3) short-term storage of natural gas; and

“(4) long-term waste storage.

“(e) Termination of Authority.—This section
and the authority provided by this section terminate on
December 31, 2030.

“SEC. 711. RESEARCH AND DEVELOPMENT.

“(a) In General.—The Administrator shall carry
out a program to perform and support research on global
climate change standards and processes, with the goals
of—
“(1) providing scientific and technical knowledge applicable to the reduction of global warming pollutants; and

“(2) facilitating implementation of section 704.

“(b) RESEARCH PROGRAM.—

“(1) IN GENERAL.—The Administrator shall carry out, directly or through the use of contracts or grants, a global climate change standards and processes research program.

“(2) RESEARCH.—

“(A) CONTENTS AND PRIORITIES.—The specific contents and priorities of the research program shall be determined in consultation with appropriate Federal agencies, including—

“(i) the National Oceanic and Atmospheric Administration;

“(ii) the National Aeronautics and Space Administration; and

“(iii) the Department of Energy.

“(B) TYPES OF RESEARCH.—The research program shall include the conduct of basic and applied research—

“(i) to develop and provide the enhanced measurements, calibrations, data, models, and reference material standards
necessary to enable the monitoring of global warming pollution;

“(ii) to assist in establishing a baseline reference point for future trading in global warming pollutants (including the measurement of progress in emission reductions);

“(iii) for international exchange as scientific or technical information for the stated purpose of developing mutually-recognized measurements, standards, and procedures for reducing global warming pollution; and

“(iv) to assist in developing improved industrial processes designed to reduce or eliminate global warming pollution.

“(3) ABRUPT CLIMATE CHANGE RESEARCH.—

“(A) DEFINITION OF ABRUPT CLIMATE CHANGE.—In this paragraph, the term ‘abrupt climate change’ means a change in climate that occurs so rapidly or unexpectedly that humans or natural systems may have difficulty adapting to the change.

“(B) RESEARCH.—The Administrator shall carry out a program of scientific research on
potential abrupt climate change that is designed—

“(i) to develop a global array of terrestrial and oceanographic indicators of paleoclimate in order to identify and describe past instances of abrupt climate change;

“(ii) to improve understanding of thresholds and nonlinearities in geophysical systems relating to the mechanisms of abrupt climate change;

“(iii) to incorporate those mechanisms into advanced geophysical models of climate change; and

“(iv) to test the output of those models against an improved global array of records of past abrupt climate changes.

“(c) SENSE OF THE SENATE.—It is the sense of the Senate that Federal funds for clean, low-carbon energy research, development, and deployment should be increased by at least 100 percent for each year during the 10-year period beginning on the date of enactment of this title.

“SEC. 712. ENERGY EFFICIENCY PERFORMANCE STANDARD.

“(a) DEFINITIONS.—In this section:
“(1) ELECTRICITY SAVINGS.—

“(A) IN GENERAL.—The term ‘electricity savings’ means reductions in end-use electricity consumption relative to consumption by the same customer or at the same new or existing facility in a given year, as defined in regulations promulgated by the Administrator under subsection (e).

“(B) INCLUSIONS.—The term ‘savings’ includes savings achieved as a result of—

“(i) installation of energy-saving technologies and devices; and

“(ii) the use of combined heat and power systems, fuel cells, or any other technology identified by the Administrator that recaptures or generates energy solely for onsite customer use.

“(C) EXCLUSION.—The term ‘savings’ does not include savings from measures that would likely be adopted in the absence of energy-efficiency programs, as determined by the Administrator.

“(2) RETAIL ELECTRICITY SALES.—The term ‘retail electricity sales’ means the total quantity of electric energy sold by a retail electricity supplier to
retail customers during the most recent calendar year for which that information is available.

“(3) RETAIL ELECTRICITY SUPPLIER.—The term ‘retail electricity supplier’ means a distribution or integrated utility, or an independent company or entity, that sells electric energy to consumers.

“(b) ENERGY EFFICIENCY PERFORMANCE STANDARD.—Each retail electricity supplier shall implement programs and measures to achieve improvements in energy efficiency and peak load reduction, as verified by the Administrator.

“(c) TARGETS.—For calendar year 2008 and each calendar year thereafter, the Administrator shall ensure that retail electric suppliers annually achieve electricity savings and reduce peak power demand and electricity use by retail customers by a percentage that is not less than the applicable target percentage specified in the following table:

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Reduction in peak demand</th>
<th>Reduction in electricity use</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>.25 percent</td>
<td>.25 percent</td>
</tr>
<tr>
<td>2009</td>
<td>.75 percent</td>
<td>.75 percent</td>
</tr>
<tr>
<td>2010</td>
<td>1.75 percent</td>
<td>1.5 percent</td>
</tr>
<tr>
<td>2011</td>
<td>2.75 percent</td>
<td>2.25 percent</td>
</tr>
<tr>
<td>2012</td>
<td>3.75 percent</td>
<td>3.0 percent</td>
</tr>
<tr>
<td>2013</td>
<td>4.75 percent</td>
<td>3.75 percent</td>
</tr>
<tr>
<td>2014</td>
<td>5.75 percent</td>
<td>4.5 percent</td>
</tr>
<tr>
<td>2015</td>
<td>6.75 percent</td>
<td>5.25 percent</td>
</tr>
<tr>
<td>2016</td>
<td>7.75 percent</td>
<td>6.0 percent</td>
</tr>
<tr>
<td>2017</td>
<td>8.75 percent</td>
<td>6.75 percent</td>
</tr>
<tr>
<td>2018</td>
<td>9.75 percent</td>
<td>7.5 percent</td>
</tr>
<tr>
<td>2019</td>
<td>10.75 percent</td>
<td>8.25 percent</td>
</tr>
<tr>
<td>2020 and each calendar year thereafter.</td>
<td>11.75 percent</td>
<td>9.0 percent</td>
</tr>
</tbody>
</table>
“(d) BEGINNING DATE.—For the purpose of meeting
the targets established under subsection (e), electricity
savings shall be calculated based on the sum of—

“(1) savings realized as a result of actions
taken by the retail electric supplier during the speci-

fied calendar year; and

“(2) cumulative savings realized as a result of
electricity savings achieved in all previous calendar
years (beginning with calendar year 2006).

“(e) IMPLEMENTING REGULATIONS.—

“(1) IN GENERAL.—Not later than 1 year after
the date of enactment of this title, the Administrator
shall promulgate regulations to implement the tar-
gets established under subsection (e).

“(2) REQUIREMENTS.—The regulations shall
establish—

“(A) a national credit system permitting
credits to be awarded, bought, sold, or traded
by and among retail electricity suppliers;

“(B) a fee equivalent to not less than 4
cents per kilowatt hour for retail energy sup-
pliers that do not meet the targets established
under subsection (e); and
“(C) standards for monitoring and verification of electricity use and demand savings reported by the retail electricity suppliers.

“(3) Consideration of transmission and distribution efficiency.—In developing regulations under this subsection, the Administrator shall consider whether savings, in whole or part, achieved by retail electricity suppliers by improving the efficiency of electric distribution and use should be eligible for credits established under this section.

“(f) Compliance with State Law.—Nothing in this section shall supersede or otherwise affect any State or local law requiring or otherwise relating to reductions in total annual electricity consumption, or peak power consumption, by electric consumers to the extent that the State or local law requires more stringent reductions than those required under this section.

“(g) Voluntary Participation.—The Administrator may—

“(1) pursuant to the regulations promulgated under subsection (e)(1), issue a credit to any entity that is not a retail electric supplier if the entity implements electricity savings; and

“(2) in a case in which an entity described in paragraph (1) is a nonprofit or educational organi-
zation, provide to the entity 1 or more grants in lieu
of a credit.

“SEC. 713. RENEWABLE PORTFOLIO STANDARD.

“(a) RENEWABLE ENERGY.—

“(1) IN GENERAL.—The Administrator, in con-
sultation with the Secretary of Energy, shall promul-
gate regulations defining the types and sources of
renewable energy generation that may be carried out
in accordance with this section.

“(2) INCLUSIONS.—In promulgating regulations
under paragraph (1), the Administrator shall include
of all types of renewable energy (as defined in sec-
tion 203(b) of the Energy Policy Act of 2005 (42
U.S.C. 15852(b))) other than energy generated
from—

“(A) municipal solid waste;

“(B) wood contaminated with plastics or
metals; or

“(C) tires.

“(b) RENEWABLE ENERGY REQUIREMENT.—Of the
base quantity of electricity sold by each retail electric sup-
plier to electric consumers during a calendar year, the
quantity generated by renewable energy sources shall be
not less than the following percentages:
``Calendar year:''

<table>
<thead>
<tr>
<th>Minimum annual percentage:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 through 2009 ........</td>
</tr>
<tr>
<td>2010 through 2014 ..........</td>
</tr>
<tr>
<td>2015 through 2019 ..........</td>
</tr>
<tr>
<td>2020 and subsequent years</td>
</tr>
</tbody>
</table>

``(c) RENEWABLE ENERGY CREDIT PROGRAM.—Not later than 1 year after the date of enactment of this title, the Administrator shall establish—

``(1) a program to issue, establish the value of, monitor the sale or exchange of, and track renewable energy credits; and

``(2) penalties for any retail electric supplier that does not comply with this section.

``(d) PROHIBITION ON DOUBLE COUNTING.—A renewable energy credit issued under subsection (e)—

``(1) may be counted toward meeting the requirements of subsection (b) only once; and

``(2) shall vest with the owner of the system or facility that generates the renewable energy that is covered by the renewable energy credit, unless the owner explicitly transfers the renewable energy credit.

``(e) SALE UNDER PURPA CONTRACT.—If the Administrator, after consultation with the Secretary of Energy, determines that a renewable energy generator is selling electricity to comply with this section to a retail elec-
tric supplier under a contract subject to section 210 of the Public Utilities Regulatory Policies Act of 1978 (16 U.S.C. 824a–3), the retail electric supplier shall be treated as the generator of the electric energy for the purposes of this title for the duration of the contract.

“(f) STATE PROGRAMS.—Nothing in this section precludes any State from requiring additional renewable energy generation under any State renewable energy program.

“(g) VOLUNTARY PARTICIPATION.—The Administrator may issue a renewable energy credit pursuant to subsection (c) to any entity that is not subject to this section only if the entity applying for the renewable energy credit meets the terms and conditions of this section to the same extent as retail electric suppliers subject to this section.

“SEC. 714. STANDARDS TO ACCOUNT FOR BIOLOGICAL SEQUESTRATION OF CARBON.

“(a) IN GENERAL.—Not later than 2 years after the date of enactment of title, the Secretary of Agriculture, with the concurrence of the Administrator, shall establish standards for accrediting certified reductions in the emission of carbon dioxide through above-ground and below-ground biological sequestration activities.
“(b) Requirements.—The standards shall include—

“(1) a national biological carbon storage baseline or inventory; and

“(2) measurement, monitoring, and verification guidelines based on—

“(A) measurement of increases in carbon storage in excess of the carbon storage that would have occurred in the absence of a new management practice designed to achieve biological sequestration of carbon;

“(B) comprehensive carbon accounting that—

“(i) reflects sustained net increases in carbon reservoirs; and

“(ii) takes into account any carbon emissions resulting from disturbance of carbon reservoirs in existence as of the date of commencement of any new management practice designed to achieve biological sequestration of carbon;

“(C) adjustments to account for—

“(i) emissions of carbon that may result at other locations as a result of the impact of the new biological sequestration
management practice on timber supplies;

or

“(ii) potential displacement of carbon emissions to other land owned by the entity that carries out the new biological sequestration management practice; and

“(D) adjustments to reflect the expected carbon storage over various time periods, taking into account the likely duration of the storage of carbon in a biological reservoir.

“(e) UPDATING OF STANDARDS.—Not later than 3 years after the date of establishment of the standards under subsection (a), and every 3 years thereafter, the Secretary of Agriculture shall update the standards to take into account the most recent scientific information.

“SEC. 715. GLOBAL WARMING POLLUTION REPORTING.

“(a) IN GENERAL.—Not later than 2 years after the date of enactment of this title, and annually thereafter, any entity considered to be a major stationary source (as defined in section 169A(g)) shall submit to the Administrator a report describing the emissions of global warming pollutants from the entity for the preceding calendar year.

“(b) VOLUNTARY REPORTING.—An entity that is not described in subsection (a) may voluntarily report the
emissions of global warming pollutants from the entity to
the Administrator.

“(c) REQUIREMENTS FOR REPORTS.—

“(1) EXPRESSION OF MEASUREMENTS.—Each
global warming pollution report submitted under this
section shall express global warming pollution emis-
sions in—

“(A) metric tons of each global warming
pollutant; and

“(B) metric tons of the carbon dioxide
equivalent of each global warming pollutant.

“(2) ELECTRONIC FORMAT.—The information
contained in a report submitted under this section
shall be reported electronically to the Administrator
in such form and to such extent as may be required
by the Administrator.

“(3) DE MINIMIS EXEMPTION.—The Adminis-
trator may specify the level of global warming pollu-
tion emissions from a source within a facility that
shall be considered to be a de minimis exemption
from the requirement to comply with this section.

“(d) PUBLIC AVAILABILITY OF INFORMATION.—Not
later than March 1 of the year after which the Adminis-
trator receives a report under this subsection from an enti-
ty, and annually thereafter, the Administrator shall make
the information reported under this section available to
the public through the Internet.

“(e) Protocols and Methods.—The Administrator shall, by regulation, establish protocols and methods
to ensure completeness, consistency, transparency, and ac-
curacy of data on global warming pollution emissions sub-
mitted under this section.

“(f) Enforcement.—Regulations promulgated
under this section may be enforced pursuant to section
113 with respect to any person that—

“(1) fails to submit a report under this section;
or

“(2) otherwise fails to comply with those regu-
lations.

“SEC. 716. CLEAN ENERGY TECHNOLOGY DEPLOYMENT IN
DEVELOPING COUNTRIES.

“(a) Definitions.—In this section:

“(1) Clean energy technology.—The term
‘clean energy technology’ means an energy supply or
end-use technology that, over the lifecycle of the
technology and compared to a similar technology al-
ready in commercial use in any developing country—

“(A) is reliable; and

“(B) results in reduced emissions of global
warming pollutants.
“(2) DEVELOPING COUNTRY.—

“(A) IN GENERAL.—The term ‘developing country’ means any country not listed in Annex I of the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

“(B) INCLUSION.—The term ‘developing country’ may include a country with an economy in transition, as determined by the Secretary.

“(3) TASK FORCE.—The term ‘Task Force’ means the Task Force on International Clean, Low-Carbon Energy Cooperation established under subsection (b)(1).

“(b) TASK FORCE.—

“(1) ESTABLISHMENT.—Not later than 90 days after the date of enactment of this title, the President shall establish a task force to be known as the ‘Task Force on International Clean, Low Carbon Energy Cooperation’.

“(2) COMPOSITION.—The Task Force shall be composed of—

“(A) the Administrator and the Secretary of State, who shall serve jointly as Co-Chairpersons; and
“(B) representatives, appointed by the head of the respective Federal agency, of—

“(i) the Department of Commerce;

“(ii) the Department of the Treasury;

“(iii) the United States Agency for International Development;

“(iv) the Export-Import Bank;

“(v) the Overseas Private Investment Corporation;

“(vi) the Office of United States Trade Representative; and

“(vii) such other Federal agencies as are determined to be appropriate by the President.

“(c) DUTIES.—

“(1) INITIAL STRATEGY.—

“(A) IN GENERAL.—Not later than 1 year after the date of enactment of this title, the Task Force shall develop and submit to the President an initial strategy—

“(i) to support the development and implementation of programs and policies in developing countries to promote the adoption of clean, low-carbon energy technologies and energy-efficiency technologies
and strategies, with an emphasis on those
developing countries that are expected to
experience the most significant growth in
global warming pollution emissions over
the 20-year period beginning on the date
of enactment of this title; and

“(ii)(I) open and expand clean, low-
carbon energy technology markets; and

“(II) facilitate the export of that tech-
nology to developing countries.

“(B) Submission to Congress.—On re-
cceipt of the initial strategy from the Task Force
under subparagraph (A), the President shall
submit the initial strategy to Congress.

“(2) Final Strategy.—Not later than 2 years
after the date of submission of the initial strategy
under paragraph (1), and every 2 years thereafter—

“(A) the Task Force shall—

“(i) review and update the initial
strategy; and

“(ii) report the results of the review
and update to the President; and

“(B) the President shall submit to Con-
gress a final strategy.
“(3) Performance criteria.—The Task Force shall develop and submit to the Administrator performance criteria for use in the provision of assistance under this section.

“(d) Provision of assistance.—The Administrator may—

“(1) provide assistance to developing countries for use in carrying out activities that are consistent with the priorities established in the final strategy; and

“(2) establish a pilot program that provides financial assistance for qualifying projects (as determined by the Administrator) in accordance with—

“(A) the final strategy submitted under subsection (c)(2)(B); and

“(B) any performance criteria developed by the Task Force under subsection (c)(3).

“SEC. 717. PARAMOUNT INTEREST WAIVER.

“(a) In General.—If the President determines that a national security emergency exists and, in light of information that was not available as of the date of enactment of this title, that it is in the paramount interest of the United States to modify any requirement under this title to minimize the effects of the emergency, the President may, after opportunity for public notice and comment,
temporarily adjust, suspend, or waive any regulations promulgated pursuant to this title to achieve that minimization.

“(b) CONSULTATION.—In making an emergency determination under subsection (a), the President shall, to the maximum extent practicable, consult with and take into account any advice received from—

“(1) the Academy;
“(2) the Secretary of Energy; and
“(3) the Administrator.

“(c) JUDICIAL REVIEW.—An emergency determination under subsection (a) shall be subject to judicial review under section 307.

“SEC. 718. EFFECT ON OTHER LAW.

“Nothing in this title—

“(1) affects the ability of a State to take State actions to further limit climate change (except that section 209 shall apply to standards for vehicles); and

“(2) except as expressly provided in this title—

“(A) modifies or otherwise affects any requirement of this Act in effect on the day before the date of enactment of this title; or

“(B) relieves any person of the responsibility to comply with this Act.”.
SEC. 3. RENEWABLE CONTENT OF GASOLINE.

Section 211(o) of the Clean Air Act (as amended by section 1501 of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 1067)) is amended—

(1) in paragraph (1)—

(A) by redesignating subparagraph (B) as subparagraph (E); and

(B) by inserting after subparagraph (A) the following:

“(B) LOW-CARBON RENEWABLE FUEL.—The term ‘low-carbon renewable fuel’ means renewable fuel the use of which, on a full fuel cycle, per-mile basis, and as compared with the use of gasoline, achieves a reduction in global warming pollution emissions of 75 percent or more.”; and

(2) in paragraph (2)—

(A) in subparagraph (A)(i), by inserting “and low-carbon renewable fuel” after “renewable fuel”; and

(B) in subparagraph (B)—

(i) in clause (iv), by striking “(iv) MINIMUM APPLICABLE VOLUME.—For the purpose of subparagraph (A), the applicable volume” and inserting the following:
“(iv) Minimum Applicable Volume of Renewable Fuel.—For the purpose of subparagraph (A), the minimum applicable volume of renewable fuel”; and

(ii) by adding at the end the following:

“(v) Minimum Applicable Volume of Low-Carbon Renewable Fuel.—For the purpose of subparagraph (A), the minimum applicable volume of low-carbon renewable fuel for calendar year 2015 and each calendar year thereafter shall be 5,000,000,000 gallons.”.

SEC. 4. ENFORCEMENT AND JUDICIAL REVIEW.

(a) Federal Enforcement.—Section 113 of the Clean Air Act (42 U.S.C. 7413) is amended—

(1) in subsection (a)(3), by striking “or title VI,” and inserting “title VI, or title VII,”;

(2) in subsection (b)(2), by striking “or title VI,” and inserting “title VI, or title VII,”;

(3) in subsection (c)—

(A) in the first sentence of paragraph (1), by striking “or title VI (relating to stratospheric ozone control),” and inserting “title VI (relating to stratospheric ozone control), or title
VII (relating to global warming pollution emission reductions),’’; and

(B) in the first sentence of paragraph (3), by striking ‘‘or VI’’ and inserting ‘‘VI, or VII’’;

(4) in subsection (d)(1)(B), by striking ‘‘or VI’’ and inserting ‘‘VI, or VII’’; and

(5) in the first sentence of subsection (f), by striking ‘‘or VI’’ and inserting ‘‘VI, or VII’’.

(b) ESTABLISHMENT OF STANDARDS.—Section 202 of the Clean Air Act (42 U.S.C. 7521) is amended—

(1) by redesignating the second subsection (f) (as added by section 207(b) of Public Law 101–549 (104 Stat. 2482)) as subsection (n); and

(2) by inserting after subsection (n) (as redesignated by paragraph (1)) the following:

‘‘(o) GLOBAL WARMING POLLUTION EMISSION REDUCTIONS.—

“(1) IN GENERAL.—Not later than January 1, 2010, the Administrator shall promulgate regulations in accordance with subsection (a) and section 707 to require manufacturers of motor vehicles to meet the vehicle emission standards established under subsections (a) and (b) of section 707.

“(2) EFFECTIVE DATE.—The regulations promulgated under paragraph (1) shall take effect with
respect to motor vehicles sold by a manufacturer begin-
ning in model year 2016.”.

(c) ADMINISTRATIVE PROCEEDINGS AND JUDICIAL
REVIEW.—Section 307 of the Clean Air Act (42 U.S.C.
7607) is amended—

(1) in subsection (b)(1)—

(A) in the first sentence—

(i) by striking “section 111,” and in-
serting “section 111,”; and

(ii) by inserting “any emission stand-
ard or requirement issued pursuant to title
VII,” after “under section 120,”; and

(B) in the second sentence, by striking
“section 112,” and inserting “section 112,”;

and

(2) in subsection (d)(1)—

(A) in subparagraph (T), by striking “,
and” at the end;

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

(C) by adding at the end the following:
“(V) the promulgation or revision of any regu-
lation under title VII (relating to global warming
pollution).”.

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SEC. 5. FEDERAL FLEET FUEL ECONOMY.

Section 32917 of title 49, United States Code, is amended by adding at the end the following:

“(3) NEW VEHICLES.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), each passenger vehicle purchased, or leased for a period of at least 60 consecutive days, by an Executive agency after the date of enactment of this paragraph shall be as fuel-efficient as practicable.

“(B) WAIVER.—In an emergency situation, an Executive agency may submit to Congress a written request for a waiver of the requirement under paragraph (1).”.

SEC. 6. INTERNATIONAL NEGOTIATIONS AND TRADE RESTRICTIONS.

It is the sense of the Senate that the United States should act to reduce the health, environmental, economic, and national security risks posed by global climate change, and foster sustained economic growth through a new generation of technologies, by—

(1) participating in negotiations under the United Nations Framework Convention on Climate Change, done at New York May 9, 1992, and leading efforts in other international forums, with the
objective of securing participation of the United States in agreements that—

(A) advance and protect the economic and national security interests of the United States;

(B) establish mitigation commitments by all countries that are major emitters of global warming pollution, in accordance with the principle of “common but differentiated responsibilities”;

(C) establish flexible international mechanisms to minimize the cost of efforts by participating countries; and

(D) achieve a significant long-term reduction in global warming pollution emissions; and

(2) establishing a bipartisan Senate observation group, the members of which should be designated by the Chairman and Ranking Member of the Committee on Foreign Relations of the Senate, and which should include the Chairman and Ranking Member of the Committee on Environment and Public Works of the Senate—

(A) to monitor any international negotiations on climate change; and

(B) to ensure that the advice and consent function of the Senate is exercised in a manner
to facilitate timely consideration of any applicable treaty submitted to the Senate.

SEC. 7. REPORT ON TRADE AND INNOVATION EFFECTS.

Not later than 2 years after the date of enactment of this Act, and annually thereafter, the Secretary of Commerce, in consultation with the United States Trade Representative, the Secretary of the Treasury, the Secretary of Agriculture, the Secretary of Energy, and the Administrator of the Environmental Protection Agency (referred to in this section as the “Secretary”), shall prepare and submit to Congress a report on the trade, economic, and technology innovation effects of the failure of the United States to adopt measures that require or result in a reduction in total global warming pollution emissions in the United States, in accordance with the goals for the United States under the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

SEC. 8. CLIMATE CHANGE IN ENVIRONMENTAL IMPACT STATEMENTS.

In any case in which a Federal agency prepares an environmental impact statement or similar analysis required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), the Federal agency shall consider and evaluate—
(1) the impact that the Federal action or
project necessitating the statement or analysis would
have in terms of net changes in global warming poll-
lution emissions; and
(2) the ways in which climate changes may af-
fect the action or project in the short term and the
long term.

SEC. 9. CORPORATE ENVIRONMENTAL DISCLOSURE OF
CLIMATE CHANGE RISKS.

(a) REGULATIONS.—Not later than 2 years after the
date of enactment of this Act, the Securities and Ex-
change Commission (referred to in this section as the
“Commission”) shall promulgate regulations in accord-
ance with section 13 of the Securities Exchange Act of
1934 (15 U.S.C. 78m) directing each issuer of securities
under that Act to inform securities investors of the risks
relating to—
(1) the financial exposure of the issuer because
of the net global warming pollution emissions of the
issuer; and
(2) the potential economic impacts of global
warming on the interests of the issuer.

(b) UNIFORM FORMAT FOR DISCLOSURE.—In car-
rying out subsection (a), the Commission shall enter into
an agreement with the Financial Accounting Standards
Board, or another appropriate organization that establishes voluntary standards, to develop a uniform format for disclosing to securities investors information on the risks described in subsection (a).

(c) INTERIM INTERPRETIVE RELEASE.—

(1) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Commission shall issue an interpretive release clarifying that under items 101 and 303 of Regulation S-K of the Commission under part 229 of title 17, Code of Federal Regulations (as in effect on the date of enactment of this Act)—

(A) the commitments of the United States to reduce emissions of global warming pollution under the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, are considered to be a material effect; and

(B) global warming constitutes a known trend.

(2) PERIOD OF EFFECTIVENESS.—The interpretive release issued under paragraph (1) shall remain in effect until the effective date of the final regulations promulgated under subsection (a).