

# Calendar No. 742

110TH CONGRESS  
2D SESSION

# S. 3036

To direct the Administrator of the Environmental Protection Agency to establish a program to decrease emissions of greenhouse gases, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

MAY 20, 2008

Mrs. BOXER introduced the following bill; which was read the first time

MAY 21, 2008

Read the second time and placed on the calendar

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## A BILL

To direct the Administrator of the Environmental Protection Agency to establish a program to decrease emissions of greenhouse gases, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the  
5 “Lieberman-Warner Climate Security Act of 2008”.

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

- Sec. 3. Purposes.
- Sec. 4. Definitions.

## TITLE I—CAPPING GREENHOUSE GAS EMISSIONS

### Subtitle A—Tracking Emissions

- Sec. 1101. Purpose.
- Sec. 1102. Definitions.
- Sec. 1103. Reporting requirements.
- Sec. 1104. Data quality and verification.
- Sec. 1105. Federal greenhouse gas registry.
- Sec. 1106. Enforcement.

### Subtitle B—Reducing Emissions

- Sec. 1201. Emission allowance account.
- Sec. 1202. Compliance obligation.
- Sec. 1203. Penalty for noncompliance.
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## TITLE II—MANAGING AND CONTAINING COSTS EFFICIENTLY

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- Sec. 2101. Sale, exchange, and retirement of emission allowances.
- Sec. 2102. No restriction on transactions.
- Sec. 2103. Allowance transfer system.
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### Subtitle B—Banking

- Sec. 2201. Indication of calendar year.
- Sec. 2202. Effect of time.

### Subtitle C—Borrowing

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- Sec. 2302. Term.
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### Subtitle D—Offsets

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- Sec. 2402. Establishment of domestic offset program.
- Sec. 2403. Eligible offset project types.
- Sec. 2404. Project initiation and approval.
- Sec. 2405. Offset verification and issuance of allowances.
- Sec. 2406. Tracking of reversals for sequestration projects.
- Sec. 2407. Examinations.
- Sec. 2408. Timing and the provision of offset allowances.
- Sec. 2409. Offset registry.
- Sec. 2410. Environmental considerations.
- Sec. 2411. Program review.
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### Subtitle E—International Emission Allowances

- Sec. 2501. Use of international emission allowances.
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Subtitle F—Carbon Market Efficiency Board

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- Sec. 2602. Establishment of Carbon Market Efficiency Board.
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- Sec. 2605. Estimate of costs to economy of limiting greenhouse gas emissions.

TITLE III—ALLOCATING AND DISTRIBUTING ALLOWANCES

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- Sec. 3101. Allocation for early auctions.
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Subtitle B—Early Action

- Sec. 3201. Allocation.
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- Sec. 3301. Allocation for energy savings.
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- Sec. 3401. Allocation.
- Sec. 3402. Distribution.
- Sec. 3403. Use.
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Subtitle E—Natural Gas Consumers

- Sec. 3501. Allocation.
- Sec. 3502. Distribution.
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Subtitle F—Bonus Allowances for Carbon Capture and Geological Sequestration

- Sec. 3601. Allocation.
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- Sec. 3701. Allocation.
- Sec. 3702. Agricultural and forestry greenhouse gas management research.

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- Sec. 4201. Establishment.
- Sec. 4202. Applicable laws.
- Sec. 4203. Board of directors.
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Subtitle C—Auctions

- Sec. 4301. Early auctions.
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- Sec. 4401. General allocations.
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- Sec. 4404. Fuel from cellulose biomass.
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Subtitle E—Energy Consumers

- Sec. 4501. Proportions of funding availability.
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Subtitle F—Climate Change Worker Training Program

- Sec. 4601. Funding.
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- Sec. 4701. Definitions.
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- Sec. 7001. National Academy of Sciences Reviews.
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- Sec. 7006. Study by Administrator of aviation sector greenhouse gas emissions.

TITLE VIII—FRAMEWORK FOR GEOLOGICAL SEQUESTRATION OF  
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- Sec. 8001. National drinking water regulations.
- Sec. 8002. Assessment of geological storage capacity for carbon dioxide.
- Sec. 8003. Study of the feasibility relating to construction of pipelines and geological carbon dioxide sequestration activities.
- Sec. 8004. Liabilities for closed geological storage sites.

TITLE IX—MISCELLANEOUS

- Sec. 9001. Paramount interest waiver.
- Sec. 9002. Administrative procedure and judicial review.
- Sec. 9003. Retention of State authority.
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- Sec. 9005. Rocky Mountain Centers for Study of Coal Utilization.
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TITLE X—CONTROL OF HYDROFLUOROCARBON CONSUMPTION

- Sec. 10001. Applicability.
- Sec. 10002. Definitions.
- Sec. 10003. Cap on hydrofluorocarbon consumption and importation into United States.
- Sec. 10004. Hydrofluorocarbon consumption allowance account.
- Sec. 10005. Allocation of hydrofluorocarbon consumption allowances.
- Sec. 10006. Compliance obligation.
- Sec. 10007. Sale, exchange, and other uses of hydrofluorocarbon consumption allowances.
- Sec. 10008. Allowance transfer system.
- Sec. 10009. Banking and borrowing.
- Sec. 10010. Hydrofluorocarbon destruction allowances.

TITLE XI—AMENDMENTS TO CLEAN AIR ACT

- Sec. 11001. National recycling and emission reduction program.
- Sec. 11002. Servicing of motor vehicle air conditioners.
- Sec. 11003. Carbon dioxide reduction.

**1 SEC. 2. FINDINGS.**

**2** Congress finds that—

**3** (1) unchecked global warming poses a signifi-

**4** cant threat to—

1 (A) the national security and economy of  
2 the United States;

3 (B) public health and welfare in the  
4 United States;

5 (C) the well-being of other countries; and

6 (D) the global environment;

7 (2) under the United Nations Framework Con-  
8 vention on Climate Change, done at New York on  
9 May 9, 1992, the United States is committed to sta-  
10 bilizing greenhouse gas concentrations in the atmos-  
11 phere at a level that will prevent dangerous anthro-  
12 pogenic interference with the climate system;

13 (3) according to the Fourth Assessment Report  
14 of the Intergovernmental Panel on Climate Change,  
15 stabilizing greenhouse gas concentrations in the at-  
16 mosphere at a level that will prevent dangerous in-  
17 terference with the climate system will require a  
18 global effort to reduce anthropogenic greenhouse gas  
19 emissions worldwide by 50 to 85 percent below 2000  
20 levels by 2050;

21 (4) prompt, decisive action is critical, since  
22 global warming pollutants can persist in the atmos-  
23 phere for more than a century;

1           (5) the ingenuity of the people of the United  
2 States will allow the United States to become a lead-  
3 er in curbing global warming;

4           (6) it is possible and desirable to cap green-  
5 house gas emissions, from sources that together ac-  
6 count for the majority of those emissions in the  
7 United States, at or slightly below the current level  
8 in 2012, and to lower the cap each year between  
9 2012 and 2050, on the condition that the system in-  
10 cludes—

11                   (A) cost containment measures;

12                   (B) periodic review of requirements;

13                   (C) an aggressive program for deploying  
14 advanced energy technology;

15                   (D) programs to assist low- and middle-in-  
16 come energy consumers; and

17                   (E) programs to mitigate the impacts of  
18 any unavoidable global climate change;

19           (7) Congress may need to update the emissions  
20 caps in order to account for continuing scientific  
21 data and steps taken, or not taken, by foreign coun-  
22 tries;

23           (8) accurate emission data and timely compli-  
24 ance with the requirements of the greenhouse gas  
25 emission reduction and trading program established



1 under this Act are needed to ensure that reductions  
2 are achieved and to provide equity, efficiency, and  
3 openness in the market for allowances subject to the  
4 program;

5 (9) additional policies external to a cap-and-  
6 trade program may be required, including with re-  
7 spect to—

8 (A) the transportation sector, where reduc-  
9 ing greenhouse gas emissions requires changes  
10 in vehicles, in fuels, and in consumer behavior;  
11 and

12 (B) the built environment, where reducing  
13 direct and indirect greenhouse gas emissions re-  
14 quires changes in buildings, appliances, light-  
15 ing, heating, cooling, and consumer behavior;

16 (10) significant and sustained domestic invest-  
17 ments are required to support an aggressive pro-  
18 gram for developing and deploying advanced tech-  
19 nologies to reduce greenhouse gas emissions;

20 (11) all, or virtually all, emissions of green-  
21 house gases from the combustion of natural gas in  
22 the United States should be reduced through the in-  
23 clusion in a cap-and-trade system of entities that sell  
24 natural gas in the United States;

1           (12) including natural gas in a cap-and-trade  
2 system in the United States should be carried out in  
3 a way that minimizes, to the extent feasible, the  
4 number of entities required to submit emission al-  
5 lowances for the natural gas sold by the entities;

6           (13) including natural gas in a cap-and-trade  
7 system in the United States promotes substantial re-  
8 ductions in total United States greenhouse gas emis-  
9 sions while also minimizing, to the extent feasible,  
10 the activities within the industrial sector that neces-  
11 sitate the submission of emission allowances;

12           (14) emissions of sulfur dioxide, nitrogen ox-  
13 ides, and mercury to the atmosphere from coal-fired  
14 electric power generating facilities in the United  
15 States inflicts harm on the public health, economy,  
16 and natural resources of the United States;

17           (15) fossil fuel-fired electric power generating  
18 facilities emit approximately 67 percent of the total  
19 sulfur dioxide emissions, 23 percent of the total ni-  
20 trogen oxide emissions, 40 percent of the total car-  
21 bon dioxide emissions, and 40 percent of the total  
22 mercury emissions in the United States;

23           (16) while the reductions in emissions of sulfur  
24 dioxide, nitrogen oxides, and mercury that will occur  
25 in the presence of a declining cap on the greenhouse

1 gas emissions from coal-fired electric power gener-  
2 ating facilities are larger than those that would  
3 occur in the absence of such a cap, new, stricter  
4 Federal limits on emissions of sulfur dioxide, nitro-  
5 gen oxides, and mercury may still be needed to pro-  
6 tect public health; and

7 (17) many existing fossil fuel-fired electric  
8 power generating facilities were exempted by Con-  
9 gress from emissions limitations applicable to new  
10 and modified units based on an expectation by Con-  
11 gress that, over time, the units would be retired or  
12 updated with new pollution control equipment, but  
13 many of the exempted facilities nevertheless continue  
14 to operate and emit pollutants at relatively high  
15 rates and without new pollution control equipment.

16 **SEC. 3. PURPOSES.**

17 The purposes of this Act are—

18 (1) to establish the core of a Federal program  
19 that will reduce United States greenhouse gas emis-  
20 sions substantially enough between 2007 and 2050  
21 to avert the catastrophic impacts of global climate  
22 change; and

23 (2) to accomplish that purpose while preserving  
24 robust growth in the United States economy, cre-

1       ating new jobs, and avoiding the imposition of hard-  
2       ship on United States citizens.

3 **SEC. 4. DEFINITIONS.**

4       In this Act:

5           (1) **ADDITIONAL; ADDITIONALITY.**—The terms  
6       “additional” and “additionality” mean the extent to  
7       which reductions in greenhouse gas emissions or in-  
8       creases in sequestration are incremental to business-  
9       as-usual, measured as the difference between—

10           (A) baseline greenhouse gas fluxes of an  
11           offset project; and

12           (B) greenhouse gas fluxes of the offset  
13           project.

14           (2) **ADMINISTRATOR.**—The term “Adminis-  
15       trator” means the Administrator of the Environ-  
16       mental Protection Agency.

17           (3) **BASELINE.**—The term “baseline” means  
18       the greenhouse gas flux or carbon stock that would  
19       have occurred in the absence of an offset project.

20           (4) **BIOLOGICAL SEQUESTRATION; BIO-**  
21       **LOGICALLY SEQUESTERED.**—The terms “biological  
22       sequestration” and “biologically sequestered”  
23       mean—

1 (A) the removal of greenhouse gases from  
2 the atmosphere by biological means, such as by  
3 growing plants; and

4 (B) the storage of those greenhouse gases  
5 in the plants or related soils.

6 (5) CARBON DIOXIDE EQUIVALENT.—The term  
7 “carbon dioxide equivalent” means, for each green-  
8 house gas, the quantity of the greenhouse gas that  
9 the Administrator determines makes the same con-  
10 tribution to global warming as 1 metric ton of car-  
11 bon dioxide.

12 (6) CORPORATION.—The term “Corporation”  
13 means the Climate Change Credit Corporation es-  
14 tablished by section 4201(a).

15 (7) COVERED FACILITY.—The term “covered  
16 facility” means—

17 (A) any facility that uses more than 5,000  
18 tons of coal in a calendar year;

19 (B) any facility that is a natural gas proc-  
20 essing plant or that produces natural gas in the  
21 State of Alaska, or any entity that imports nat-  
22 ural gas (including liquefied natural gas);

23 (C) any facility that in any year produces,  
24 or any entity that in any year imports,  
25 petroleum- or coal-based liquid or gaseous fuel,

1 the combustion of which will emit a group I  
2 greenhouse gas, assuming no capture and se-  
3 questration of that gas;

4 (D) any facility that in any year produces  
5 for sale or distribution, or any entity that in  
6 any year imports, more than 10,000 carbon di-  
7 oxide equivalents of chemicals that are group I  
8 greenhouse gas, assuming no capture and de-  
9 struction or sequestration of that gas; or

10 (E) any facility that in any year emits as  
11 a byproduct of the production of  
12 hydrochlorofluorocarbons more than 10,000  
13 carbon dioxide equivalents of  
14 hydrofluorocarbons.

15 (8) DESTRUCTION.—The term “destruction”  
16 means the conversion of a greenhouse gas by ther-  
17 mal, chemical, or other means—

18 (A) to another gas with a low- or zero-  
19 global warming potential; and

20 (B) for which credit given reflects the ex-  
21 tent of reduction in global warming potential  
22 actually achieved.

23 (9) EMISSION ALLOWANCE.—The term “emis-  
24 sion allowance” means an authorization to emit 1  
25 carbon dioxide equivalent of greenhouse gas.

1           (10) EMISSION ALLOWANCE ACCOUNT.—The  
2 term “Emission Allowance Account” means the ag-  
3 gregate of emission allowances that the Adminis-  
4 trator establishes for a calendar year.

5           (11) FACILITY.—The term “facility” means—

6           (A) 1 or more buildings, structures, or in-  
7 stallations located on 1 or more contiguous or  
8 adjacent properties of an entity in the United  
9 States; and

10          (B) at the option of the Administrator, any  
11 activity or operation that—

12           (i) emits 10,000 carbon dioxide  
13 equivalents in any year; and

14           (ii) has a technical connection with  
15 the activities carried out at a facility, such  
16 as use of transportation fleets, pipelines,  
17 transmission lines, and distribution lines,  
18 but that is not conducted or located on the  
19 property of the facility.

20          (12) FAIR MARKET VALUE.—The term “fair  
21 market value” means the average market price, in a  
22 particular calendar year, of an emission allowance.

23          (13) GEOLOGICAL SEQUESTRATION; GEOLOGI-  
24 CALLY SEQUESTERED.—The terms “geological se-  
25 questration” and “geologically sequestered” mean

1 the permanent isolation of greenhouse gases, without  
2 reversal, in geological formations, in accordance with  
3 part C of the Safe Drinking Water Act (42 U.S.C.  
4 300h et seq.), as determined by the Administrator.

5 (14) GROUP I GREENHOUSE GAS.—The term  
6 “group I greenhouse gas” means any of—

7 (A) carbon dioxide;

8 (B) methane;

9 (C) nitrous oxide;

10 (D) sulfur hexafluoride; or

11 (E) a perfluorocarbon.

12 (15) GROUP II GREENHOUSE GAS.—The term  
13 “group II greenhouse gas” means a  
14 hydrofluorocarbon.

15 (16) LEAKAGE.—The term “leakage” means—

16 (A) a significant unaccounted increase in  
17 greenhouse gas emissions by a facility or entity  
18 caused by an offset project that produces an ac-  
19 counted reduction in greenhouse gas emissions,  
20 as determined by the Administrator; or

21 (B) a significant unaccounted decrease in  
22 sequestration that is caused by an offset project  
23 that results in an accounted increase in seques-  
24 tration, as determined by the Administrator.



1           (17) LOAD-SERVING ENTITY.—The term “load-  
2           serving entity” means an entity, whether public or  
3           private—

4                   (A) that has a legal, regulatory, or con-  
5           tractual obligation to deliver electricity to retail  
6           consumers; and

7                   (B) whose rates and costs are, except in  
8           the case of a registered electric cooperative, reg-  
9           ulated by a State agency, regulatory commis-  
10          sion, municipality, or public utility district.

11          (18) NATURAL GAS PROCESSING PLANT.—The  
12          term “natural gas processing plant” means a facility  
13          in the United States that is designed to separate  
14          natural gas liquids from natural gas.

15          (19) NEW ENTRANT.—The term “new entrant”  
16          means any facility that commences operation on or  
17          after January 1, 2008.

18          (20) OFFSET ALLOWANCE.—The term “offset  
19          allowance” means a unit of reduction in the quantity  
20          of emissions or an increase in sequestration equal to  
21          1 carbon dioxide equivalent at an entity that is not  
22          a covered facility, where the reduction in emissions  
23          or increase in sequestration is eligible to be used as  
24          an additional means of compliance for the submis-  
25          sion requirements established under section 1202.

1           (21) OFFSET PROJECT.—The term “offset  
2 project” means a domestic project, other than a  
3 project at a covered facility, that reduces greenhouse  
4 gas emissions or increases terrestrial sequestration  
5 of carbon dioxide.

6           (22) PROJECT DEVELOPER.—The term “project  
7 developer” means an individual or entity imple-  
8 menting an offset project.

9           (23) QUANTITY OF REMAINDER EMISSION AL-  
10 LOWANCES.—The term “quantity of remainder emis-  
11 sion allowances” means the quantity of emission al-  
12 lowances established for a calendar year, less the  
13 quantity of emission allowances obtained by multi-  
14 plying—

15           (A) the quantity of emission allowances es-  
16 tablished for that year; by

17           (B) the percentage that corresponds to  
18 that year in the table contained in section  
19 3101(c).

20           (24) RETAIL RATE FOR DISTRIBUTION SERV-  
21 ICE.—

22           (A) IN GENERAL.—The term “retail rate  
23 for distribution service” means the rate that a  
24 load-serving entity charges for the use of the  
25 system of the load-serving entity.

1 (B) EXCLUSION.—The term “retail rate  
2 for distribution service” does not include any  
3 energy component of the rate.

4 (25) RETIRE AN EMISSION ALLOWANCE.—The  
5 term “retire an emission allowance” means to dis-  
6 qualify an emission allowance for any subsequent  
7 use, regardless of whether the use is a sale, ex-  
8 change, or submission of the allowance in satisfying  
9 a compliance obligation.

10 (26) REVERSAL.—The term “reversal” means  
11 an intentional or unintentional loss of sequestered  
12 carbon dioxide to the atmosphere in significant  
13 quantities, as determined by the Administrator, in  
14 order to accomplish the purposes of this Act in an  
15 effective and efficient manner.

16 (27) RURAL ELECTRIC COOPERATIVE.—The  
17 term “rural electric cooperative” means a coopera-  
18 tively-owned association that was in existence as of  
19 October 18, 2007, and is eligible to receive loans  
20 under section 4 of the Rural Electrification Act of  
21 1936 (7 U.S.C. 904).

22 (28) SEQUESTERED AND SEQUESTRATION.—  
23 The terms “sequestered” and “sequestration” mean  
24 the capture, permanent separation, isolation, or re-

1 removal of greenhouse gases from the atmosphere, as  
 2 determined by the Administrator.

3 (29) STATE REGULATORY AUTHORITY.—The  
 4 term “State regulatory authority” means any State  
 5 agency that has ratemaking authority with respect  
 6 to the retail rate for distribution service.

7 **TITLE I—CAPPING GREENHOUSE**  
 8 **GAS EMISSIONS**  
 9 **Subtitle A—Tracking Emissions**

10 **SEC. 1101. PURPOSE.**

11 The purpose of this subtitle is to establish a Federal  
 12 greenhouse gas registry that—

13 (1) is complete, consistent, transparent, and ac-  
 14 curate;

15 (2) will collect reliable and accurate data that  
 16 can be used by public and private entities to design  
 17 efficient and effective energy security initiatives and  
 18 greenhouse gas emission reduction strategies; and

19 (3) will provide appropriate high-quality data to  
 20 be used for implementing greenhouse gas reduction  
 21 policies.

22 **SEC. 1102. DEFINITIONS.**

23 In this subtitle:

24 (1) AFFECTED FACILITY.—

1 (A) IN GENERAL.—The term “affected fa-  
2 cility” means—

3 (i) a covered facility;

4 (ii) another facility that emits a  
5 greenhouse gas, as determined by the Ad-  
6 ministrator; and

7 (iii) at the option of the Adminis-  
8 trator, a vehicle fleet with emissions of  
9 more than 10,000 carbon dioxide equiva-  
10 lents in any year, assuming no double-  
11 counting of emissions.

12 (B) EXCLUSIONS.—The term “affected fa-  
13 cility” does not include any facility that—

14 (i) is not a covered facility;

15 (ii) is owned or operated by a small  
16 business (as described in part 121 of title  
17 13, Code of Federal Regulations (or a suc-  
18 cessor regulation)); and

19 (iii) emits fewer than 10,000 carbon  
20 dioxide equivalents in any year.

21 (2) CARBON CONTENT.—The term “carbon con-  
22 tent” means the quantity of carbon (in carbon diox-  
23 ide equivalent) contained in a fuel.

24 (3) CLIMATE REGISTRY.—The term “Climate  
25 Registry” means the greenhouse gas emissions reg-

1       istry jointly established and managed by more than  
2       40 States and Indian tribes to collect high-quality  
3       greenhouse gas emission data from facilities, cor-  
4       porations, and other organizations to support var-  
5       ious greenhouse gas emission reporting and reduc-  
6       tion policies for the member States and Indian  
7       tribes.

8               (4) FEEDSTOCK FOSSIL FUEL.—The term  
9       “feedstock fossil fuel” means fossil fuel used as raw  
10      material in a manufacturing process.

11              (5) GREENHOUSE GAS EMISSIONS.—The term  
12      “greenhouse gas emissions” means emissions of a  
13      greenhouse gas, including—

14                   (A) stationary combustion source emissions  
15                   emitted as a result of combustion of fuels in  
16                   stationary equipment, such as boilers, furnaces,  
17                   burners, turbines, heaters, incinerators, engines,  
18                   flares, and other similar sources;

19                   (B) process emissions consisting of emis-  
20                   sions from chemical or physical processes other  
21                   than combustion;

22                   (C) fugitive emissions consisting of inten-  
23                   tional and unintentional emissions from equip-  
24                   ment leaks, such as joints, seals, packing, and

1 gaskets, or from piles, pits, cooling towers, and  
2 other similar sources; and

3 (D) biogenic emissions resulting from bio-  
4 logical processes, such as anaerobic decomposi-  
5 tion, nitrification, and denitrification.

6 (6) INDIAN TRIBE.—The term “Indian tribe”  
7 has the meaning given the term in section 4 of the  
8 Indian Self-Determination and Education Assistance  
9 Act (25 U.S.C. 450b).

10 (7) REGISTRY.—The term “Registry” means  
11 the Federal greenhouse gas registry established  
12 under section 1105(a).

13 (8) SOURCE.—The term “source” means any  
14 building, structure, installation, unit, point, oper-  
15 ation, vehicle, land area, or other item that emits or  
16 may emit a greenhouse gas.

17 **SEC. 1103. REPORTING REQUIREMENTS.**

18 (a) IN GENERAL.—Subject to this section, each af-  
19 fected facility shall submit to the Administrator, for inclu-  
20 sion in the Registry, periodic reports, including annual  
21 and quarterly data, that—

22 (1) include the quantity and type of fossil fuels,  
23 including feedstock fossil fuels, that are extracted,  
24 produced, refined, imported, exported, or consumed  
25 at or by the facility;

1           (2) include the quantity of hydrofluorocarbons,  
2           perfluorocarbons, sulfur hexafluoride, nitrous oxide,  
3           carbon dioxide that has been captured and seques-  
4           tered, and other greenhouse gases generated, pro-  
5           duced, imported, exported, or consumed at or by the  
6           facility;

7           (3) include the quantity of electricity generated,  
8           imported, exported, or consumed by or at the facil-  
9           ity, and information on the quantity of greenhouse  
10          gases emitted when the imported, exported, or con-  
11          sumed electricity was generated, as determined by  
12          the Administrator;

13          (4) include the aggregate quantity of all green-  
14          house gas emissions from sources at the facility, in-  
15          cluding stationary combustion source emissions,  
16          process emissions, and fugitive emissions;

17          (5) include greenhouse gas emissions expressed  
18          in metric tons of each greenhouse gas emitted and  
19          in the quantity of carbon dioxide equivalents of each  
20          greenhouse gas emitted;

21          (6) include a list and description of sources of  
22          greenhouse gas emissions at the facility;

23          (7) quantify greenhouse gas emissions in ac-  
24          cordance with the measurement standards estab-  
25          lished under section 1104;



1           (8) include other data necessary for accurate  
2 and complete accounting of greenhouse gas emis-  
3 sions, as determined by the Administrator;

4           (9) include an appropriate certification regard-  
5 ing the accuracy and completeness of reported data,  
6 as determined by the Administrator; and

7           (10) are submitted electronically to the Admin-  
8 istrator, in such form and to such extent as may be  
9 required by the Administrator.

10 (b) DE MINIMIS EXEMPTIONS.—

11           (1) IN GENERAL.—The Administrator may de-  
12 termine—

13           (A) whether certain sources at a facility  
14 should be considered to be eligible for a de  
15 minimis exemption from a requirement for re-  
16 porting under subsection (a); and

17           (B) the level of greenhouse gases emitted  
18 from a source that would qualify for such an  
19 exemption.

20           (2) FACTORS.—In making a determination  
21 under paragraph (1), the Administrator shall con-  
22 sider the availability and suitability of simplified  
23 techniques and tools for quantifying emissions and  
24 the cost to measure those emissions relative to the

1 purposes of this title, including the goal of collecting  
2 complete and consistent facility-wide data.

3 (c) VERIFICATION OF REPORT REQUIRED.—Before  
4 including the information from a report required under  
5 this section in the Registry, the Administrator shall verify  
6 the completeness and accuracy of the report using infor-  
7 mation provided under this section, obtained under section  
8 9002(c), or obtained under other provisions of law.

9 (d) TIMING.—

10 (1) CALENDAR YEARS 2004 THROUGH 2007.—  
11 For a baseline period of calendar years 2004  
12 through 2007, each affected facility shall submit re-  
13 quired annual data described in this section to the  
14 Administrator not later than March 31, 2009.

15 (2) SUBSEQUENT CALENDAR YEARS.—For cal-  
16 endar year 2008 and each subsequent calendar year,  
17 each affected facility shall submit quarterly data de-  
18 scribed in this section to the Administrator not later  
19 than 60 days after the end of the applicable quarter.

20 (e) NO EFFECT ON OTHER REQUIREMENTS.—Noth-  
21 ing in this title affects any requirement in effect as of the  
22 date of enactment of this Act relating to the reporting  
23 of—

24 (1) fossil fuel production, refining, importation,  
25 exportation, or consumption data;

- 1 (2) greenhouse gas emission data; or
- 2 (3) other relevant data.

3 **SEC. 1104. DATA QUALITY AND VERIFICATION.**

4 (a) **PROTOCOLS AND METHODS.—**

5 (1) **IN GENERAL.**—The Administrator shall es-  
6 tablish by regulation, taking into account the work  
7 done by the Climate Registry, comprehensive proto-  
8 cols and methods to ensure the accuracy, complete-  
9 ness, consistency, and transparency of data on  
10 greenhouse gas emissions and fossil fuel production,  
11 refining, importation, exportation, and consumption  
12 submitted to the Registry that include—

13 (A) accounting and reporting standards for  
14 fossil fuel production, refining, importation, ex-  
15 portation, and consumption;

16 (B) a requirement that, where technically  
17 feasible, submitted data are monitored using  
18 monitoring systems for fuel flow or emissions,  
19 such as continuous emission monitoring systems  
20 or equivalent systems of similar rigor, accuracy,  
21 quality, and timeliness;

22 (C) a requirement that, if a facility has al-  
23 ready been directed to monitor emissions of a  
24 greenhouse gas using a continuous emission  
25 monitoring system under existing law, that sys-

1           tem be used in complying with this Act with re-  
2           spect to the greenhouse gas;

3           (D) for cases in which the Administrator  
4           determines that monitoring emissions with the  
5           precision, reliability, accessibility, and timeli-  
6           ness similar to that provided by a continuous  
7           emission monitoring system are not techno-  
8           logically feasible, standardized methods for cal-  
9           culating greenhouse gas emissions in specific in-  
10          dustries using other readily available and reli-  
11          able information, such as fuel consumption, ma-  
12          terials consumption, production, or other rel-  
13          evant activity data, on the condition that those  
14          methods do not underreport emissions, as com-  
15          pared with the continuous emission monitoring  
16          system;

17          (E) information on the accuracy of meas-  
18          urement and calculation methods;

19          (F) methods to avoid double-counting of  
20          greenhouse gas emissions;

21          (G) protocols to prevent an affected facility  
22          from avoiding the reporting requirements of  
23          this title (such as by reorganizing into multiple  
24          entities or outsourcing activities that result in  
25          greenhouse gas emissions); and

1                   (H) protocols for verification of data sub-  
2                   mitted by affected facilities.

3                   (2) BEST PRACTICES.—The protocols and  
4                   methods developed under paragraph (1) shall incor-  
5                   porate and conform to the best practices from the  
6                   most recent Federal, State, and international proto-  
7                   cols for the measurement, accounting, reporting, and  
8                   verification of greenhouse gas emissions to ensure  
9                   the accuracy, completeness, and consistency of the  
10                  data.

11                  (b) VERIFICATION; INFORMATION BY REPORTING  
12                  ENTITIES.—Each affected facility shall—

13                   (1) provide information sufficient for the Ad-  
14                   ministrator to verify, in accordance with the proto-  
15                   cols and methods developed under subsection (a),  
16                   that the fossil fuel data and greenhouse gas emission  
17                   data of the affected facility have been completely  
18                   and accurately reported; and

19                   (2) ensure the submission or retention, for the  
20                   5-year period beginning on the date of provision of  
21                   the information, of—

22                               (A) data sources;

23                               (B) information on internal control activi-  
24                               ties;

1 (C) information on assumptions used in re-  
2 porting emissions and fuels;

3 (D) uncertainty analyses; and

4 (E) other relevant data and information to  
5 facilitate the verification of reports submitted to  
6 the Registry.

7 (c) WAIVER OF REPORTING REQUIREMENTS.—The  
8 Administrator may waive reporting requirements for spe-  
9 cific facilities if the Administrator determines that suffi-  
10 cient and equally or more reliable data are available under  
11 other provisions of law.

12 (d) MISSING DATA.—If information, satisfactory to  
13 the Administrator, is not provided for an affected facility,  
14 the Administrator shall—

15 (1) prescribe methods to estimate emissions for  
16 the facility for each period for which data are miss-  
17 ing, reflecting the highest emission levels that may  
18 reasonably have occurred during the period for  
19 which data are missing; and

20 (2) take appropriate enforcement action pursu-  
21 ant to this section and section 9002(b).

22 **SEC. 1105. FEDERAL GREENHOUSE GAS REGISTRY.**

23 (a) ESTABLISHMENT.—The Administrator shall es-  
24 tablish a Federal greenhouse gas registry.

1 (b) ADMINISTRATION.—In establishing the Registry,  
2 the Administrator shall—

3 (1) design and operate the Registry;

4 (2) establish an advisory body that is broadly  
5 representative of private enterprise, agriculture, en-  
6 vironmental groups, and State, tribal, and local gov-  
7 ernments to guide the development and management  
8 of the Registry;

9 (3) provide coordination and technical assist-  
10 ance for the development of proposed protocols and  
11 methods, taking into account the duties carried out  
12 by the Climate Registry, to be published by the Ad-  
13 ministrator;

14 (4)(A) develop an electronic format for report-  
15 ing under guidelines established under section  
16 1104(a)(1); and

17 (B) make the electronic format available to re-  
18 porting entities;

19 (5) verify and audit the data submitted by re-  
20 porting entities;

21 (6) establish consistent policies for calculating  
22 carbon content and greenhouse gas emissions for  
23 each type of fossil fuel reported under section 1103;

1           (7) calculate carbon content and greenhouse gas  
2           emissions associated with the combustion of fossil  
3           fuel data reported by reporting entities;

4           (8) immediately publish on the Internet all in-  
5           formation contained in the Registry, except in any  
6           case in which publishing the information would re-  
7           sult in a disclosure of—

8                   (A) information vital to national security,  
9                   as determined by the President; or

10                   (B) confidential business information that  
11                   cannot be derived from information that is oth-  
12                   erwise publicly available and that would cause  
13                   significant calculable competitive harm if pub-  
14                   lished (except that information relating to  
15                   greenhouse gas emissions shall not be consid-  
16                   ered to be confidential business information).

17           (c) **THIRD-PARTY VERIFICATION.**—The Adminis-  
18           trator may use the services of third parties that have no  
19           conflicts of interest to verify reports required under sec-  
20           tion 1103.

21           (d) **REGULATIONS.**—The Administrator shall—

22                   (1) not later than 180 days after the date of  
23                   enactment of this Act, propose regulations to carry  
24                   out this section; and



1           (2) not later than July 1, 2008, promulgate  
2           final regulations to carry out this section.

3 **SEC. 1106. ENFORCEMENT.**

4           (a) CIVIL ACTIONS.—The Administrator may bring  
5 a civil action in United States district court against the  
6 owner or operator of an affected facility that fails to com-  
7 ply with any requirement of this subtitle.

8           (b) PENALTY.—Any person that has violated or is  
9 violating this subtitle shall be subject to a civil penalty  
10 of not more than \$25,000 per day of each violation.

11           **Subtitle B—Reducing Emissions**

12 **SEC. 1201. EMISSION ALLOWANCE ACCOUNT.**

13           (a) IN GENERAL.—The Administrator shall establish  
14 a separate quantity of emission allowances for each of cal-  
15 endar years 2012 through 2050.

16           (b) IDENTIFICATION NUMBERS.—The Administrator  
17 shall assign to each emission allowance established under  
18 subsection (a) a unique identification number that in-  
19 cludes the calendar year for which that emission allowance  
20 was established.

21           (c) LEGAL STATUS OF EMISSION ALLOWANCES.—

22               (1) IN GENERAL.—An emission allowance shall  
23 not be a property right.

24               (2) TERMINATION OR LIMITATION.—Nothing in  
25 this Act or any other provision of law limits the au-

1       thority of the United States to terminate or limit an  
2       emission allowance.

3               (3) OTHER PROVISIONS UNAFFECTED.—Noth-  
4       ing in this Act relating to emission allowances shall  
5       affect the application of, or compliance with, any  
6       other provision of law to or by a covered facility.

7               (d) ALLOWANCES FOR EACH CALENDAR YEAR.—The  
8       numbers of emission allowances established by the Admin-  
9       istrator for each of calendar years 2012 through 2050  
10      shall be as follows:

Calendar Year	Number of Emission Allowances (in Millions)
2012	5,775
2013	5,669
2014	5,562
2015	5,456
2016	5,349
2017	5,243
2018	5,137
2019	5,030
2020	4,924
2021	4,817
2022	4,711
2023	4,605
2024	4,498
2025	4,392
2026	4,286

Calendar Year	Number of Emission Allowances (in Millions)
2027	4,179
2028	4,073
2029	3,966
2030	3,860
2031	3,754
2032	3,647
2033	3,541
2034	3,435
2035	3,328
2036	3,222
2037	3,115
2038	3,009
2039	2,903
2040	2,796
2041	2,690
2042	2,584
2043	2,477
2044	2,371
2045	2,264
2046	2,158
2047	2,052
2048	1,945
2049	1,839
2050	1,732

1 **SEC. 1202. COMPLIANCE OBLIGATION.**

2 (a) IN GENERAL.—Not later than 90 days after the  
3 end of a calendar year, the owner or operator of a covered  
4 facility shall submit to the Administrator an emission al-  
5 lowance, an offset allowance awarded pursuant to subtitle  
6 D of title II, or an international emission allowance ob-  
7 tained in compliance with regulations promulgated under  
8 section 2502, for each carbon dioxide equivalent of—

9 (1) group I greenhouse gas that was emitted by  
10 the use of coal by that covered facility during the  
11 preceding year;

12 (2) group I greenhouse gas that will, assuming  
13 no capture and sequestration of that gas, be emitted  
14 from the use of any petroleum- or coal-based liquid  
15 or gaseous fuel that was produced or imported by  
16 that covered facility during the preceding year;

17 (3) group I greenhouse gas that was produced  
18 for sale or distribution or imported by that facility  
19 during the preceding year;

20 (4) group II greenhouse gas that was emitted  
21 as a byproduct of hydrochlorofluorocarbon produc-  
22 tion; and

23 (5) group I greenhouse gas that will, assuming  
24 no capture and destruction or sequestration of that  
25 gas, be emitted—

1 (A) from the use of natural gas that was,  
2 by that covered facility, processed, imported, or  
3 produced and not reinjected into the field; or

4 (B) from the use of natural gas liquids  
5 that were processed or imported by that covered  
6 facility during the preceding year.

7 (b) REQUIREMENTS.—

8 (1) ASSUMPTIONS.—For the purpose of calcu-  
9 lating the submission requirement under paragraphs  
10 (2) through (5) of subsection (a), the Administrator  
11 shall, subject to subsections (e) through (g), assume  
12 that no capture, sequestration, chemical retention,  
13 or other retention of a greenhouse gas has occurred  
14 or will occur.

15 (2) FACTORS FOR CONSIDERATION.—For the  
16 purpose of calculating the submission requirement  
17 under paragraph (1) of subsection (a), the Adminis-  
18 trator shall take into account any metric tons of car-  
19 bon dioxide that the owner or operator has geologi-  
20 cally sequestered during the preceding calendar year.

21 (c) RETIREMENT OF ALLOWANCES.—Immediately  
22 upon receipt of an emission allowance under subsection  
23 (a), the Administrator shall retire the emission allowance.

24 (d) DETERMINATION OF COMPLIANCE.—Not later  
25 than July 1 of each year, the Administrator shall deter-

1 mine whether the owners and operators of all covered fa-  
2 cilities are in full compliance with subsection (a) for the  
3 preceding year.

4 (e) FEEDSTOCK CREDIT.—If the Administrator de-  
5 termines that an entity has used a petroleum- or coal-  
6 based product, natural gas, or a natural gas liquid as a  
7 feedstock during any of calendar years 2012 through  
8 2050, such that no group I greenhouse gas associated with  
9 that feedstock will be emitted, the Administrator shall es-  
10 tablish and distribute to that entity a quantity of emission  
11 allowances equal to the quantity of emission allowances,  
12 offset allowances, or international emission allowances  
13 submitted under subsection (a) for that petroleum- or  
14 coal-based product, natural gas, or natural gas liquid.

15 (f) SEQUESTRATION CREDIT.—If the Administrator  
16 determines that the owner or operator of a covered facility  
17 that is subject to the submission requirement under any  
18 of paragraphs (2) through (5) of subsection (a) has geo-  
19 logically sequestered carbon dioxide during any of calendar  
20 years 2012 through 2050, the Administrator shall estab-  
21 lish and distribute to that owner or operator a quantity  
22 of emission allowances equal to the number of metric tons  
23 of carbon dioxide that the owner or operator geologically  
24 sequestered during that calendar year.

1 (g) DESTRUCTION CREDIT.—If the Administrator de-  
2 termines that an entity has destroyed greenhouse gas dur-  
3 ing any of calendar years 2012 through 2050, the Admin-  
4 istrator shall establish and distribute to that entity a  
5 quantity of emission allowances equal to the number of  
6 carbon dioxide equivalents of greenhouse gas that the  
7 owner or operator destroyed during that calendar year.

8 **SEC. 1203. PENALTY FOR NONCOMPLIANCE.**

9 (a) EXCESS EMISSIONS PENALTY.—

10 (1) IN GENERAL.—The owner or operator of  
11 any covered facility that fails for any year to submit  
12 to the Administrator by the deadline described in  
13 section 1202(a) or 2303, 1 or more of the emission  
14 allowances due pursuant to either of those sections  
15 shall be liable for the payment to the Administrator  
16 of an excess emissions penalty.

17 (2) AMOUNT.—The amount of an excess emis-  
18 sions penalty required to be paid under paragraph  
19 (1) shall be, as determined by the Administrator, an  
20 amount equal to the product obtained by multi-  
21 plying—

22 (A) the number of excess emission allow-  
23 ances that the owner or operator failed to sub-  
24 mit; and

25 (B) the greater of—

- 1 (i) \$200; or  
2 (ii) a dollar figure representing 3  
3 times the mean market value of an emis-  
4 sion allowance during the calendar year for  
5 which the emission allowances were due.

6 (3) TIMING.—An excess emissions penalty re-  
7 quired under this subsection shall be immediately  
8 due and payable to the Administrator, without de-  
9 mand, in accordance with such regulations as shall  
10 be promulgated by the Administrator by the date  
11 that is 1 year after the date of enactment of this  
12 Act.

13 (4) DEPOSIT.—The Administrator shall deposit  
14 each excess emissions penalty paid under this sub-  
15 section in the Treasury of the United States.

16 (5) NO EFFECT ON LIABILITY.—An excess  
17 emissions penalty due and payable by the owner or  
18 operator of a covered facility under this subsection  
19 shall not diminish the liability of the owner or oper-  
20 ator for any fine, penalty, or assessment against the  
21 owner or operator for the same violation under any  
22 other provision of this Act or any other law.

23 (b) EXCESS EMISSION ALLOWANCE.—

24 (1) IN GENERAL.—The owner or operator of a  
25 covered facility that fails for any year to submit to



1 the Administrator by the deadline described in sec-  
2 tion 1202(a) or 2303 1 or more of the emission al-  
3 lowances due pursuant to either of those sections  
4 shall be liable to offset the excess emissions by an  
5 equal quantity, in tons, during—

6 (A) the following calendar year; or

7 (B) such longer period as the Adminis-  
8 trator may prescribe.

9 (2) PLAN.—

10 (A) IN GENERAL.—Not later than 60 days  
11 after the end of the calendar year during which  
12 a covered facility emits excess emissions, the  
13 owner or operator of the covered facility shall  
14 submit to the Administrator, and to the State  
15 in which the covered facility is located, a pro-  
16 posed plan to achieve the required offsets for  
17 the excess emissions.

18 (B) CONDITION OF OPERATION.—Upon  
19 approval of a proposed plan described in sub-  
20 paragraph (A) by the Administrator, the plan,  
21 as submitted, modified, or conditioned, shall be  
22 considered to be a condition of the operating  
23 permit for the covered facility, without further  
24 review or revision of the permit.

1           (C) DEDUCTION OF ALLOWANCES.—For  
2           each covered facility that, in any calendar year,  
3           emits excess emissions, the Administrator shall  
4           deduct, from emission allowances allocated to  
5           the covered facility for the calendar year, or for  
6           succeeding years during which offsets are re-  
7           quired, emission allowances equal to the excess  
8           quantity, in tons, of the excess emissions.

9           (c) PROHIBITION.—It shall be unlawful for the owner  
10          or operator of any facility liable for a penalty and offset  
11          under this section to fail—

12           (1) to pay the penalty in accordance with this  
13          section;

14           (2) to provide, and thereafter comply with, a  
15          proposed plan for compliance as required by sub-  
16          section (b)(2); and

17           (3) to offset excess emissions as required by  
18          subsection (b)(1).

19          (d) NO EFFECT ON OTHER SECTION.—Nothing in  
20          this subtitle limits or otherwise affects the application of  
21          section 9002(b).

22          **SEC. 1204. RULEMAKING.**

23          Not later than 2 years after the date of enactment  
24          of this Act, the Administrator shall, by rule, expand the  
25          definition of the term “covered facility” to ensure the in-

1 clusion of all greenhouse gas emissions from natural gas  
2 emitted, flared during production or processing, or sold  
3 for use in the United States.

4 **TITLE II—MANAGING AND CON-**  
5 **TAINING COSTS EFFICIENTLY**  
6 **Subtitle A—Trading**

7 **SEC. 2101. SALE, EXCHANGE, AND RETIREMENT OF EMIS-**  
8 **SION ALLOWANCES.**

9 Except as otherwise provided in this Act, the lawful  
10 holder of an emission allowance may, without restriction,  
11 sell, exchange, transfer, submit for compliance in accord-  
12 ance with section 1202, or retire the emission allowance.

13 **SEC. 2102. NO RESTRICTION ON TRANSACTIONS.**

14 The privilege of purchasing, holding, selling, exchang-  
15 ing, and retiring emission allowances shall not be re-  
16 stricted to the owners and operators of covered facilities.

17 **SEC. 2103. ALLOWANCE TRANSFER SYSTEM.**

18 (a) IN GENERAL.—Not later than 18 months after  
19 the date of enactment of this Act, the Administrator shall  
20 promulgate regulations to carry out the provisions of this  
21 Act relating to emission allowances, including regulations  
22 providing that the transfer of emission allowances shall  
23 not be effective until such date as a written certification  
24 of the transfer, signed by a responsible official of each

1 party to the transfer, is received and recorded by the Ad-  
2 ministrator in accordance with those regulations.

3 (b) TRANSFERS.—

4 (1) IN GENERAL.—The regulations promulgated  
5 under subsection (a) shall permit the transfer of al-  
6 lowances prior to the issuance of the allowances.

7 (2) DEDUCTION AND ADDITION OF TRANS-  
8 FERS.—A recorded pre-allocation transfer of allow-  
9 ances shall be—

10 (A) deducted by the Administrator from  
11 the number of allowances that would otherwise  
12 be distributed to the transferor; and

13 (B) added to those allowances distributed  
14 to the transferee.

15 **SEC. 2104. ALLOWANCE TRACKING SYSTEM.**

16 The regulations promulgated under section 2103(a)  
17 shall include a system for issuing, recording, and tracking  
18 emission allowances that shall specify all necessary proce-  
19 dures and requirements for an orderly and competitive  
20 functioning of the emission allowance system.

21 **Subtitle B—Banking**

22 **SEC. 2201. INDICATION OF CALENDAR YEAR.**

23 An emission allowance submitted to the Adminis-  
24 trator by the owner or operator of a covered facility in  
25 accordance with section 1202(a) shall not be required to

1 indicate in the identification number of the emission allow-  
2 ance the calendar year for which the emission allowance  
3 is submitted.

4 **SEC. 2202. EFFECT OF TIME.**

5 The passage of time shall not, by itself, cause an  
6 emission allowance to be retired or otherwise diminish the  
7 compliance value of the emission allowance.

8 **Subtitle C—Borrowing**

9 **SEC. 2301. REGULATIONS.**

10 (a) IN GENERAL.—Not later than 3 years after the  
11 date of enactment of this Act, the Administrator shall pro-  
12 mulgate regulations under which, subject to subsection  
13 (b), the owner or operator of a covered facility may—

14 (1) borrow emission allowances from the Ad-  
15 ministrator; and

16 (2) for a calendar year, submit borrowed emis-  
17 sion allowances to the Administrator in satisfaction  
18 of up to 15 percent of the compliance obligation  
19 under section 1202(a).

20 (b) LIMITATION.—An emission allowance borrowed  
21 under subsection (a) shall be an emission allowance estab-  
22 lished by the Administrator for a specific future calendar  
23 year under subsection 1201(a).

1 **SEC. 2302. TERM.**

2 The owner or operator of a covered facility shall not  
 3 submit, and the Administrator shall not accept, a bor-  
 4 rowed emission allowance in partial satisfaction of the  
 5 compliance obligation under section 1202(a) for any cal-  
 6 endar year that is more than 5 years earlier than the cal-  
 7 endar year included in the identification number of the  
 8 borrowed emission allowance.

9 **SEC. 2303. REPAYMENT WITH INTEREST.**

10 For each borrowed emission allowance submitted in  
 11 partial satisfaction of the compliance obligation under sub-  
 12 section 1202(a) for a particular calendar year (referred  
 13 to in this section as the “use year”), the number of emis-  
 14 sion allowances that the owner or operator is required to  
 15 submit under section 1202(a) for the year from which the  
 16 borrowed emission allowance was taken (referred to in this  
 17 section as the “source year”) shall be increased by an  
 18 amount equal to the product obtained by multiplying—

19 (1) 1.1; and

20 (2) the number of years beginning after the use  
 21 year and before the source year.

22 **Subtitle D—Offsets**

23 **SEC. 2401. OUTREACH INITIATIVE ON REVENUE ENHANCE-**  
 24 **MENT FOR AGRICULTURAL PRODUCERS.**

25 (a) ESTABLISHMENT.—The Secretary of Agriculture,  
 26 acting through the Chief of the Natural Resources Con-

1 servation Service, the Chief of the Forest Service, the Ad-  
2 ministrator of the Cooperative State Research, Education,  
3 and Extension Service, and land-grant colleges and univer-  
4 sities, in consultation with the Administrator and the  
5 heads of other appropriate departments and agencies,  
6 shall establish an outreach initiative to provide informa-  
7 tion to agricultural producers, agricultural organizations,  
8 foresters, and other landowners about opportunities under  
9 this subtitle to earn new revenue.

10 (b) COMPONENTS.—The initiative under this sec-  
11 tion—

12 (1) shall be designed to ensure that, to the  
13 maximum extent practicable, agricultural organiza-  
14 tions and individual agricultural producers, for-  
15 esters, and other landowners receive detailed prac-  
16 tical information about—

17 (A) opportunities to earn new revenue  
18 under this subtitle;

19 (B) measurement protocols, monitoring,  
20 verifying, inventorying, registering, insuring,  
21 and marketing offsets under this title;

22 (C) emerging domestic and international  
23 markets for energy crops, allowances, and off-  
24 sets; and

1 (D) local, regional, and national databases  
2 and aggregation networks to facilitate achieve-  
3 ment, measurement, registration, and sales of  
4 offsets;

5 (2) shall provide—

6 (A) outreach materials, including the hand-  
7 book published under subsection (c), to inter-  
8 ested parties;

9 (B) workshops; and

10 (C) technical assistance; and

11 (3) may include the creation and development  
12 of regional marketing centers or coordination with  
13 existing centers (including centers within the Nat-  
14 ural Resources Conservation Service or the Coopera-  
15 tive State Research, Education, and Extension Serv-  
16 ice or at land-grant colleges and universities).

17 (c) HANDBOOK.—

18 (1) IN GENERAL.—Not later than 2 years after  
19 the date of enactment of this Act, the Secretary of  
20 Agriculture, in consultation with the Administrator  
21 and after an opportunity for public comment, shall  
22 publish a handbook for use by agricultural pro-  
23 ducers, agricultural cooperatives, foresters, other  
24 landowners, offset buyers, and other stakeholders



1 that provides easy-to-use guidance on achieving, re-  
 2 porting, registering, and marketing offsets.

3 (2) DISTRIBUTION.—The Secretary of Agri-  
 4 culture shall ensure, to the maximum extent prac-  
 5 ticable, that the handbook—

6 (A) is made available through the Internet  
 7 and in other electronic media;

8 (B) includes, with respect to the electronic  
 9 form of the handbook described in subpara-  
 10 graph (A), electronic forms and calculation  
 11 tools to facilitate the petition process described  
 12 in section 2404; and

13 (C) is distributed widely through land-  
 14 grant colleges and universities and other appro-  
 15 priate institutions.

16 **SEC. 2402. ESTABLISHMENT OF DOMESTIC OFFSET PRO-**  
 17 **GRAM.**

18 (a) ALTERNATIVE MEANS OF COMPLIANCE.—Begin-  
 19 ning with calendar year 2012, the owner or operator of  
 20 a covered entity may satisfy up to 15 percent of the total  
 21 allowance submission requirement of the covered entity  
 22 under section 1202(a) by submitting offset allowances  
 23 generated in accordance with this subtitle.

24 (b) REGULATIONS REQUIRED.—

1           (1) IN GENERAL.—Not later than 18 months  
2 after the date of enactment of this Act, the Adminis-  
3 trator, in conjunction with the Secretary of Agri-  
4 culture, shall promulgate regulations authorizing the  
5 issuance and certification of offset allowances.

6           (2) CERTAIN SOURCES.—

7           (A) IN GENERAL.—For offsets from  
8 sources of greenhouse gases not linked to agri-  
9 cultural, forestry, or other land use-related  
10 projects, the regulations promulgated under this  
11 subsection shall require that the owner of the  
12 project establish the project baseline and reg-  
13 ister emissions under the Federal Greenhouse  
14 Gas Registry established under section 1105.

15           (B) REQUIREMENT.—The regulations de-  
16 scribed in subparagraph (A) shall—

17           (i) authorize the issuance and certifi-  
18 cation of offset allowances for greenhouse  
19 gas emission reductions below the project  
20 baseline; and

21           (ii) ensure that those offsets represent  
22 real, verifiable, additional, permanent, and  
23 enforceable reductions in greenhouse gas  
24 emissions or increases in sequestration.

1           (3) AGRICULTURAL, FORESTRY, AND OTHER  
2 LAND USE-RELATED PROJECTS.—For offsets from  
3 certain agricultural, forestry, and other land use-re-  
4 lated projects undertaken within the United States,  
5 the regulations promulgated under this subsection  
6 shall include provisions that—

7           (A) ensure that those offsets represent  
8 real, verifiable, additional, permanent, and en-  
9 forceable reductions in greenhouse gas emis-  
10 sions or increases in biological sequestration;

11           (B) specify the types of offset projects eli-  
12 gible to generate offset allowances, in accord-  
13 ance with section 2403;

14           (C) establish procedures for project initi-  
15 ation and approval, in accordance with section  
16 2404;

17           (D) establish procedures to monitor, quan-  
18 tify, and discount reductions in greenhouse gas  
19 emissions or increases in biological sequestra-  
20 tion, in accordance with subsections (d) through  
21 (g) of section 2404;

22           (E) establish procedures for third-party  
23 verification, registration, and issuance of offset  
24 allowances, in accordance with section 2405;

1 (F) ensure permanence of offsets by miti-  
2 gating and compensating for reversals, in ac-  
3 cordance with section 2406; and

4 (G) assign a unique serial number to each  
5 offset allowance issued under this section.

6 (c) **OFFSET ALLOWANCES AWARDED.**—The Adminis-  
7 trator shall issue offset allowances for qualifying emission  
8 reductions and biological sequestrations from offset  
9 projects that satisfy the applicable requirements of this  
10 subtitle.

11 (d) **OWNERSHIP.**—Initial ownership of an offset al-  
12 lowance shall lie with a project developer, unless otherwise  
13 specified in a legally-binding contract or agreement.

14 (e) **TRANSFERABILITY.**—An offset allowance gen-  
15 erated pursuant to this subtitle may be sold, traded, or  
16 transferred, on the conditions that—

17 (1) the offset allowance has not expired or been  
18 retired or canceled; and

19 (2) liability and responsibility for mitigating  
20 and compensating for reversals of registered offset  
21 allowances is specified in accordance with section  
22 2406(b).

23 **SEC. 2403. ELIGIBLE OFFSET PROJECT TYPES.**

24 (a) **IN GENERAL.**—Offset allowances from agricul-  
25 tural, forestry, and other land use-related projects shall

1 be limited to those allowances achieving an offset of 1 or  
2 more greenhouse gases by a method other than a reduc-  
3 tion of combustion of greenhouse gas-emitting fuel.

4 (b) CATEGORIES OF ELIGIBLE OFFSET PROJECTS.—

5 Subject to the requirements promulgated pursuant to sec-  
6 tion 2402(b), the types of operations eligible to generate  
7 offset allowances under this subtitle include—

8 (1) agricultural and rangeland sequestration  
9 and management practices, including—

10 (A) altered tillage practices;

11 (B) winter cover cropping, continuous  
12 cropping, and other means to increase biomass  
13 returned to soil in lieu of planting followed by  
14 fallowing;

15 (C) conversion of cropland to rangeland or  
16 grassland, on the condition that the land has  
17 been in nonforest use for at least 10 years be-  
18 fore the date of initiation of the project;

19 (D) reduction of nitrogen fertilizer use or  
20 increase in nitrogen use efficiency;

21 (E) reduction in the frequency and dura-  
22 tion of flooding of rice paddies; and

23 (F) reduction in carbon emissions from or-  
24 ganic soils;

1           (2) changes in carbon stocks attributed to land  
2 use change and forestry activities limited to—

3           (A) afforestation or reforestation of acre-  
4 age not forested as of October 18, 2007; and

5           (B) forest management resulting in an in-  
6 crease in forest stand volume;

7           (3) manure management and disposal, includ-  
8 ing—

9           (A) waste aeration; and

10          (B) methane capture and combustion;

11          (4) subject to the requirements of this subtitle,  
12 any other terrestrial offset practices identified by the  
13 Administrator, including—

14          (A) the capture or reduction of fugitive  
15 greenhouse gas emissions for which no covered  
16 facility is required under section 1202(a) to  
17 submit any emission allowances, offset allow-  
18 ances, or international emission allowances;

19          (B) methane capture and combustion at  
20 nonagricultural facilities; and

21          (C) other actions that result in the avoid-  
22 ance or reduction of greenhouse gas emissions  
23 in accordance with section 2402; and

24          (5) combinations of any of the offset practices  
25 described in paragraphs (1) through (4).

1 **SEC. 2404. PROJECT INITIATION AND APPROVAL.**

2 (a) **PROJECT APPROVAL.**—A project developer—

3 (1) may submit a petition for offset project ap-  
4 proval at any time following the effective date of  
5 regulations promulgated under section 2402(b); but

6 (2) may not register or issue offset allowances  
7 until such approval is received and until after the  
8 emission reductions or sequestrations supporting the  
9 offset allowances have actually occurred.

10 (b) **PETITION PROCESS.**—Prior to offset registration  
11 and issuance of offset allowances, a project developer shall  
12 submit a petition to the Administrator, consisting of—

13 (1) a copy of the monitoring and quantification  
14 plan prepared for the offset project, as described  
15 under subsection (d);

16 (2) a greenhouse gas initiation certification, as  
17 described under subsection (e); and

18 (3) subject to the requirements of this subtitle,  
19 any other information identified by the Adminis-  
20 trator in the regulations promulgated under section  
21 2402 as necessary to meet the objectives of this sub-  
22 title.

23 (c) **APPROVAL AND NOTIFICATION.**—

24 (1) **IN GENERAL.**—Not later than 180 days  
25 after the date on which the Administrator receives a

1 complete petition under subsection (b), the Adminis-  
2 trator shall—

3 (A) determine whether the monitoring and  
4 quantification plan satisfies the applicable re-  
5 quirements of this subtitle;

6 (B) determine whether the greenhouse gas  
7 initiation certification indicates a significant de-  
8 viation in accordance with subsection (e)(3);

9 (C) notify the project developer of the de-  
10 terminations under subparagraphs (A) and (B);  
11 and

12 (D) issue offset allowances for approved  
13 projects.

14 (2) APPEAL.—The Administrator shall establish  
15 mechanisms for appeal and review of determinations  
16 made under this subsection.

17 (d) MONITORING AND QUANTIFICATION.—

18 (1) IN GENERAL.—A project developer shall  
19 make use of the standardized tools and methods de-  
20 scribed in this section to monitor, quantify, and dis-  
21 count reductions in greenhouse gas emissions or in-  
22 creases in sequestration.

23 (2) MONITORING AND QUANTIFICATION  
24 PLAN.—A monitoring and quantification plan shall  
25 be used to monitor, quantify, and discount reduc-



1 tions in greenhouse gas emissions or increases in se-  
2 questration as described by this subsection.

3 (3) PLAN COMPLETION AND RETENTION.—A  
4 monitoring and quantification plan shall be—

5 (A) completed for all offset projects prior  
6 to offset project initiation; and

7 (B) retained by the project developer for  
8 the duration of the offset project.

9 (4) PLAN REQUIREMENTS.—Subject to section  
10 2402, the Administrator, in conjunction with the  
11 Secretary of Agriculture, shall specify the required  
12 components of a monitoring and quantification plan,  
13 including—

14 (A) a description of the offset project, in-  
15 cluding project type;

16 (B) a determination of accounting periods;

17 (C) an assignment of reporting responsi-  
18 bility;

19 (D) the contents and timing of public re-  
20 ports, including summaries of the original data,  
21 as well as the results of any analyses;

22 (E) a delineation of project boundaries,  
23 based on acceptable methods and formats;

24 (F) a description of which of the moni-  
25 toring and quantification tools developed under

1 subsection (f) are to be used to monitor and  
2 quantify changes in greenhouse gas fluxes or  
3 carbon stocks associated with a project;

4 (G) a description of which of the standard-  
5 ized methods developed under subsection (g) to  
6 be used to determine additionality, estimate the  
7 baseline carbon, and discount for leakage;

8 (H) based on the standardized methods  
9 chosen in subparagraphs (F) and (G), a deter-  
10 mination of uncertainty in accordance with sub-  
11 section (h);

12 (I) what site-specific data, if any, will be  
13 used in monitoring, quantification, and the de-  
14 termination of discounts;

15 (J) a description of procedures for use in  
16 managing and storing data, including quality-  
17 control standards and methods, such as redun-  
18 dancy in case records are lost;

19 (K) subject to the requirements of this  
20 subtitle, any other information identified by the  
21 Administrator or the Secretary of Agriculture  
22 as being necessary to meet the objectives of this  
23 subtitle; and

24 (L) a description of the risk of reversals  
25 for the project, including any way in which the

1           proposed project may alter the risk of reversal  
2           for the project or other projects in the area.

3           (e) GREENHOUSE GAS INITIATION CERTIFI-  
4           CATION.—

5           (1) IN GENERAL.—In reviewing a petition sub-  
6           mitted under subsection (b), the Administrator shall  
7           seek to exclude each activity that undermines the in-  
8           tegrity of the offset program established under this  
9           subtitle, such as the conversion or clearing of land,  
10          or marked change in management regime, in antici-  
11          pation of offset project initiation.

12          (2) GREENHOUSE GAS INITIATION CERTIFI-  
13          CATION REQUIREMENTS.—A greenhouse gas initi-  
14          ation certification developed under this subsection  
15          shall include—

16                (A) the estimated greenhouse gas flux or  
17                carbon stock for the offset project for each of  
18                the 4 complete calendar years preceding the ef-  
19                fective date of the regulations promulgated  
20                under section 2402(b); and

21                (B) the estimated greenhouse gas flux or  
22                carbon stock for the offset project, averaged  
23                across each of the 4 calendar years preceding  
24                the effective date of the regulations promul-  
25                gated under section 2402(b).

1           (3) DETERMINATION OF SIGNIFICANT DEVI-  
2           ATION.—Based on standards developed by the Ad-  
3           ministrator, in conjunction with the Secretary of Ag-  
4           riculture—

5                   (A) each greenhouse gas initiation certifi-  
6                   cation submitted pursuant to this section shall  
7                   be reviewed; and

8                   (B) a determination shall be made as to  
9                   whether, as a result of activities or behavior in-  
10                  consistent with the purposes of this title, a sig-  
11                  nificant deviation exists between the average  
12                  annual greenhouse gas flux or carbon stock and  
13                  the greenhouse gas flux or carbon stock for a  
14                  given year.

15           (4) ADJUSTMENT FOR PROJECTS WITH SIGNIFI-  
16           CANT DEVIATION.—In the case of a significant devi-  
17           ation, the Administrator shall adjust the number of  
18           allowances awarded in order to account for the devi-  
19           ation.

20           (f) DEVELOPMENT OF MONITORING AND QUAN-  
21           TIFICATION TOOLS FOR OFFSET PROJECTS.—

22                   (1) IN GENERAL.—Subject to section 2402(b),  
23                   the Administrator, in conjunction with the Secretary  
24                   of Agriculture, shall develop standardized tools for  
25                   use in the monitoring and quantification of changes

1 in greenhouse gas fluxes or carbon stocks for each  
2 offset project type listed under section 2403(b).

3 (2) TOOL DEVELOPMENT.—The tools used to  
4 monitor and quantify changes in greenhouse gas  
5 fluxes or carbon stocks shall, for each project type,  
6 include applicable—

7 (A) statistically-sound field and remote  
8 sensing sampling methods, procedures, tech-  
9 niques, protocols, or programs;

10 (B) models, factors, equations, or look-up  
11 tables; and

12 (C) any other process or tool considered to  
13 be acceptable by the Administrator, in conjunc-  
14 tion with the Secretary of Agriculture.

15 (g) DEVELOPMENT OF ACCOUNTING AND DIS-  
16 COUNTING METHODS.—

17 (1) IN GENERAL.—The Administrator, in con-  
18 sultation with the Secretary of Agriculture, shall—

19 (A) develop standardized methods for use  
20 in accounting for additionality and uncertainty,  
21 estimating the baseline, and discounting for  
22 leakage for each offset project type listed under  
23 section 2403(b); and

24 (B) require that leakage be subtracted  
25 from reductions in greenhouse gas emissions or

1 increases in sequestration attributable to a  
2 project.

3 (2) ADDITIONALITY DETERMINATION AND  
4 BASELINE ESTIMATION.—The standardized methods  
5 used to determine additionality and establish base-  
6 lines shall, for each project type, at a minimum—

7 (A) in the case of a sequestration project,  
8 determine the greenhouse gas flux and carbon  
9 stock on comparable land identified on the basis  
10 of—

11 (i) similarity in current management  
12 practices;

13 (ii) similarity of regional, State, or  
14 local policies or programs; and

15 (iii) similarity in geographical and bio-  
16 physical characteristics;

17 (B) in the case of an emission reduction  
18 project, use as a basis emissions from com-  
19 parable land or facilities; and

20 (C) in the case of a sequestration project  
21 or emission reduction project, specify a selected  
22 time period.

23 (3) LEAKAGE.—The standardized methods used  
24 to determine and discount for leakage shall, at a  
25 minimum, take into consideration—

1 (A) the scope of the offset system in terms  
2 of activities and geography covered;

3 (B) the markets relevant to the offset  
4 project;

5 (C) emission intensity per unit of produc-  
6 tion, both inside and outside of the offset  
7 project; and

8 (D) a time period sufficient in length to  
9 yield a stable leakage rate.

10 (h) UNCERTAINTY FOR AGRICULTURAL AND FOR-  
11 ESTRY PROJECTS.—

12 (1) IN GENERAL.—The Administrator, in con-  
13 junction with the Secretary of Agriculture, shall de-  
14 velop standardized methods for use in determining  
15 and discounting for uncertainty for each offset  
16 project type listed under section 2403(b).

17 (2) BASIS.—The standardized methods used to  
18 determine and discount for uncertainty shall be  
19 based on—

20 (A) the robustness and rigor of the meth-  
21 ods used by a project developer to monitor and  
22 quantify changes in greenhouse gas fluxes or  
23 carbon stocks;

1 (B) the robustness and rigor of methods  
2 used by a project developer to determine  
3 additionality and leakage; and

4 (C) an exaggerated proportional discount  
5 that increases relative to uncertainty, as deter-  
6 mined by the Administrator, in conjunction  
7 with the Secretary of Agriculture, to encourage  
8 better measurement and accounting.

9 (i) ACQUISITION OF NEW DATA AND REVIEW OF  
10 METHODS FOR AGRICULTURAL AND FORESTRY  
11 PROJECTS.—The Administrator, in conjunction with the  
12 Secretary of Agriculture, shall—

13 (1) establish a comprehensive field sampling  
14 program to improve the scientific bases on which the  
15 standardized tools and methods developed under this  
16 section are based; and

17 (2) review and revise the standardized tools and  
18 methods developed under this section, based on—

19 (A) validation of existing methods, proto-  
20 cols, procedures, techniques, factors, equations,  
21 or models;

22 (B) development of new methods, proto-  
23 cols, procedures, techniques, factors, equations,  
24 or models;



1 (C) increased availability of field data or  
2 other datasets; and

3 (D) any other information identified by the  
4 Administrator, in conjunction with the Sec-  
5 retary of Agriculture, that is necessary to meet  
6 the objectives of this subtitle.

7 (j) EXCLUSION.—No activity for which any emission  
8 allowances are received under subtitle G of title III shall  
9 generate offset allowances under this subtitle.

10 **SEC. 2405. OFFSET VERIFICATION AND ISSUANCE OF AL-**  
11 **LOWANCES.**

12 (a) IN GENERAL.—Offset allowances may be claimed  
13 for net emission reductions or increases in sequestration  
14 annually, after accounting for any necessary discounts in  
15 accordance with section 2404, by submitting a verification  
16 report for an offset project to the Administrator.

17 (b) OFFSET VERIFICATION.—

18 (1) SCOPE OF VERIFICATION.—A verification  
19 report for an offset project shall—

20 (A) be completed by a verifier accredited in  
21 accordance with paragraph (3); and

22 (B) shall be developed taking into consider-  
23 ation—

- 1 (i) the information and methodology  
2 contained within a monitoring and quan-  
3 tification plan;
- 4 (ii) data and subsequent analysis of  
5 the offset project, including—
- 6 (I) quantification of net emission  
7 reductions or increases in seques-  
8 tration;
- 9 (II) determination of  
10 additionality;
- 11 (III) calculation of leakage;
- 12 (IV) assessment of permanence;
- 13 (V) discounting for uncertainty;
- 14 and
- 15 (VI) the adjustment of net emis-  
16 sion reductions or increases in seques-  
17 tration by the discounts determined  
18 under clauses (II) through (V); and
- 19 (iii) subject to the requirements of  
20 this subtitle, any other information identi-  
21 fied by the Administrator as being nec-  
22 essary to achieve the purposes of this sub-  
23 title.

1           (2) VERIFICATION REPORT REQUIREMENTS.—

2           The Administrator shall specify the required compo-  
3           nents of a verification report, including—

4                   (A) the quantity of offsets generated;

5                   (B) the amount of discounts applied;

6                   (C) an assessment of methods (and the ap-  
7           propriateness of those methods);

8                   (D) an assessment of quantitative errors or  
9           omissions (and the effect of the errors or omis-  
10          sions on offsets);

11                  (E) any potential conflicts of interest be-  
12          tween a verifier and project developer; and

13                  (F) any other provision that the Adminis-  
14          trator considers to be necessary to achieve the  
15          purposes of this subtitle.

16           (3) VERIFIER ACCREDITATION.—

17                   (A) IN GENERAL.—Not later than 18  
18          months after the date of enactment of this Act,  
19          the Administrator shall promulgate regulations  
20          establishing a process and requirements for ac-  
21          creditation by a third-party verifier that has no  
22          conflicts of interest.

23                   (B) PUBLIC ACCESSIBILITY.—Each verifier  
24          meeting the requirements for accreditation in  
25          accordance with this paragraph shall be listed

1 in a publicly-accessible database, which shall be  
2 maintained and updated by the Administrator.

3 (c) REGISTRATION AND AWARDING OF OFFSETS.—

4 (1) IN GENERAL.—Not later than 90 days after  
5 the date on which the Administrator receives a  
6 verification report required under subsection (b), the  
7 Administrator shall—

8 (A) determine whether the offsets satisfy  
9 the applicable requirements of this subtitle; and

10 (B) notify the project developer of that de-  
11 termination.

12 (2) AFFIRMATIVE DETERMINATION.—In the  
13 case of an affirmative determination under para-  
14 graph (1), the Administrator shall—

15 (A) register the offset allowances in ac-  
16 cordance with this subtitle; and

17 (B) issue the offset allowances.

18 (3) APPEAL AND REVIEW.—The Administrator  
19 shall establish mechanisms for the appeal and review  
20 of determinations made under this subsection.

21 **SEC. 2406. TRACKING OF REVERSALS FOR SEQUESTRATION**  
22 **PROJECTS.**

23 (a) REVERSAL CERTIFICATION.—

24 (1) IN GENERAL.—Subject to section 2402, the  
25 Administrator shall promulgate regulations requiring

1 the submission of a reversal certification for each  
2 offset project on an annual basis following the reg-  
3 istration of offset allowances.

4 (2) REQUIREMENTS.—A reversal certification  
5 submitted in accordance with this subsection shall  
6 state—

7 (A) whether any unmitigated reversal re-  
8 lating to the offset project has occurred in the  
9 year preceding the year in which the certifi-  
10 cation is submitted; and

11 (B) the quantity of each unmitigated re-  
12 versal.

13 (b) EFFECT ON OFFSET ALLOWANCES.—

14 (1) INVALIDITY.—The Administrator shall de-  
15 clare invalid all offset allowances issued for any off-  
16 set project that has undergone a complete reversal.

17 (2) PARTIAL REVERSAL.—In the case of an off-  
18 set project that has undergone a partial reversal, the  
19 Administrator shall render invalid offset allowances  
20 issued for the offset project in direct proportion to  
21 the degree of reversal.

22 (c) ACCOUNTABILITY FOR REVERSALS.—Liability  
23 and responsibility for compensation of a reversal of a reg-  
24 istered offset allowance under subsection (a) shall lie with

1 the owner of the offset allowance, as described in section  
2 2402.

3 (d) COMPENSATION FOR REVERSALS.—The unmiti-  
4 gated reversal of 1 or more registered offset allowances  
5 that were submitted for the purpose of compliance with  
6 section 1202(a) shall require the submission of—

7 (1) an equal number of offset allowances; or

8 (2) a combination of offset allowances and  
9 emission allowances equal to the unmitigated rever-  
10 sal.

11 (e) PROJECT TERMINATION.—A project developer  
12 may cease participation in the domestic offset program es-  
13 tablished under this subtitle at any time, on the condition  
14 that any registered allowances awarded for increases in  
15 sequestration have been compensated for by the project  
16 developer through the submission of an equal number of  
17 any combination of offset allowances and emission allow-  
18 ances.

19 **SEC. 2407. EXAMINATIONS.**

20 (a) REGULATIONS.—Not later than 2 years after the  
21 date of enactment of this Act, the Administrator, in con-  
22 junction with the Secretary of Agriculture, shall promul-  
23 gate regulations governing the examination and auditing  
24 of offset allowances.

1 (b) REQUIREMENTS.—The regulations promulgated  
2 under this section shall specifically consider—

3 (1) principles for initiating and conducting ex-  
4 aminations;

5 (2) the type or scope of examinations, includ-  
6 ing—

7 (A) reporting and recordkeeping; and

8 (B) site review or visitation;

9 (3) the rights and privileges of an examined  
10 party; and

11 (4) the establishment of an appeal process.

12 **SEC. 2408. TIMING AND THE PROVISION OF OFFSET ALLOW-**  
13 **ANCES.**

14 (a) INITIATION OF OFFSET PROJECTS.—An offset  
15 project that commences operation on or after the effective  
16 date of regulations promulgated under section 2407(a)  
17 shall be eligible to generate offset allowances under this  
18 subtitle if the offset project meets the other applicable re-  
19 quirements of this subtitle.

20 (b) PRE-EXISTING PROJECTS.—

21 (1) IN GENERAL.—The Administrator may  
22 allow for the transition into the Registry of offset  
23 projects and banked offset allowances that, as of the  
24 effective date of regulations promulgated under sec-  
25 tion 2407(a), are registered under or meet the

1 standards of the Climate Registry, the California  
2 Action Registry, the GHG Registry, the Chicago Cli-  
3 mate Exchange, the GHG CleanProjects Registry, or  
4 any other Federal, State, or private reporting pro-  
5 grams or registries if the Administrator determines  
6 that such other offset projects and banked offset al-  
7 lowances under those other programs or registries  
8 satisfy the applicable requirements of this subtitle.

9 (2) EXCEPTION.—An offset allowance that is  
10 expired, retired, or canceled under any other offset  
11 program, registry, or market as of the effective date  
12 of regulations promulgated under section 2407(a)  
13 shall be ineligible for transition into the Registry.

14 **SEC. 2409. OFFSET REGISTRY.**

15 In addition to the requirements established by section  
16 2404, an offset allowance registered under this subtitle  
17 shall be accompanied in the Registry by—

18 (1) a verification report submitted pursuant to  
19 section 2405(a);

20 (2) a reversal certification submitted pursuant  
21 to section 2406(b); and

22 (3) subject to the requirements of this subtitle,  
23 any other information identified by the Adminis-  
24 trator as being necessary to achieve the purposes of  
25 this subtitle.



1 **SEC. 2410. ENVIRONMENTAL CONSIDERATIONS.**

2 (a) COORDINATION TO MINIMIZE NEGATIVE EF-  
3 FECTS.—In promulgating regulations under this subtitle,  
4 the Administrator, in conjunction with the Secretary of  
5 Agriculture, shall act (including by rejecting projects, if  
6 necessary) to avoid or minimize, to the maximum extent  
7 practicable, adverse effects on human health or the envi-  
8 ronment resulting from the implementation of offset  
9 projects under this subtitle.

10 (b) REPORT ON POSITIVE EFFECTS.—Not later than  
11 2 years after the date of enactment of this Act, the Admin-  
12 istrator, in conjunction with the Secretary of Agriculture,  
13 shall submit to Congress a report detailing—

14 (1) the incentives, programs, or policies capable  
15 of fostering improvements to human health or the  
16 environment in conjunction with the implementation  
17 of offset projects under this subtitle; and

18 (2) the cost of those incentives, programs, or  
19 policies.

20 (c) USE OF NATIVE PLANT SPECIES IN OFFSET  
21 PROJECTS.—Not later than 18 months after the date of  
22 enactment of this Act, the Administrator, in conjunction  
23 with the Secretary of Agriculture, shall promulgate regula-  
24 tions for the selection, use, and storage of native and non-  
25 native plant materials—

1           (1) to ensure native plant materials are given  
2           primary consideration, in accordance with applicable  
3           Department of Agriculture guidance for use of na-  
4           tive plant materials;

5           (2) to prohibit the use of Federal- or State-des-  
6           ignated noxious weeds; and

7           (3) to prohibit the use of a species listed by a  
8           regional or State invasive plant council within the  
9           applicable region or State.

10 **SEC. 2411. PROGRAM REVIEW.**

11           Not later than 5 years after the date of enactment  
12           of this Act, and periodically thereafter, the Administrator,  
13           in conjunction with the Secretary of Agriculture, shall re-  
14           view and revise, as necessary to achieve the purposes of  
15           this Act, the regulations promulgated under this subtitle.

16 **SEC. 2412. RETAIL CARBON OFFSETS.**

17           (a) DEFINITION OF RETAIL CARBON OFFSET.—In  
18           this section, the term “retail carbon offset” means any  
19           carbon credit or carbon offset that cannot be used in satis-  
20           faction of any mandatory compliance obligation under a  
21           regulatory system for reducing greenhouse gas emissions.

22           (b) QUALIFYING LEVELS AND REQUIREMENTS.—Not  
23           later than January 1, 2009, the Administrator shall estab-  
24           lish new qualifying levels and requirements for Energy

1 Star certification for retail carbon offsets, effective begin-  
2 ning January 1, 2010.

3 **Subtitle E—International Emission**  
4 **Allowances**

5 **SEC. 2501. USE OF INTERNATIONAL EMISSION ALLOW-**  
6 **ANCES.**

7 The owner or operator of a covered facility may sat-  
8 isfy up to 15 percent of the allowance submission require-  
9 ment of the covered facility under section 1202(a) by sub-  
10 mitting emission allowances obtained on a foreign green-  
11 house gas emissions trading market, on the condition that  
12 the Administrator has certified the market in accordance  
13 with the regulations promulgated pursuant to section  
14 2502(a).

15 **SEC. 2502. REGULATIONS.**

16 (a) IN GENERAL.—Not later than 2 years after the  
17 date of enactment of this Act, the Administrator shall pro-  
18 mulgate regulations, taking into consideration protocols  
19 adopted in accordance with the United Nations Frame-  
20 work Convention on Climate Change, done at New York  
21 on May 9, 1992—

22 (1) approving the use under this subtitle of  
23 emission allowances from such foreign greenhouse  
24 gas emissions trading markets as the regulations  
25 may establish; and

1           (2) permitting the use of international emission  
2 allowances from the foreign country that issued the  
3 emission allowances.

4           (b) REQUIREMENTS.—The regulations promulgated  
5 under subsection (a) shall require that, in order to be ap-  
6 proved for use under this subtitle—

7           (1) an emission allowance shall have been  
8 issued by a foreign country pursuant to a govern-  
9 mental program that imposes mandatory absolute  
10 tonnage limits on greenhouse gas emissions from the  
11 foreign country, or 1 or more industry sectors in  
12 that country, pursuant to protocols described in sub-  
13 section (a); and

14           (2) the governmental program be of comparable  
15 stringency to the program established by this Act,  
16 including comparable monitoring, compliance, and  
17 enforcement.

18 **SEC. 2503. FACILITY CERTIFICATION.**

19           The owner or operator of a covered facility who sub-  
20 mits an international emission allowance under this sub-  
21 title shall certify that the allowance has not been retired  
22 from use in the registry of the applicable foreign country.

1           **Subtitle F—Carbon Market**  
2                           **Efficiency Board**

3 **SEC. 2601. PURPOSES.**

4           The purposes of this subtitle are—

5                   (1) to ensure that the imposition of limits on  
6           greenhouse gas emissions will not significantly harm  
7           the economy of the United States; and

8                   (2) to establish a Carbon Market Efficiency  
9           Board to ensure the implementation and maintenance  
10          of a stable, functioning, and efficient market  
11          in emission allowances.

12 **SEC. 2602. ESTABLISHMENT OF CARBON MARKET EFFI-**  
13                           **CIENCY BOARD.**

14          (a) **ESTABLISHMENT.**—There is established a board,  
15          to be known as the “Carbon Market Efficiency Board”  
16          (referred to in this subtitle as the “Board”).

17          (b) **PURPOSES.**—The purposes of the Board are—

18                   (1) to promote the achievement of the purposes  
19          of this Act;

20                   (2) to observe the national greenhouse gas  
21          emission market and evaluate periods during which  
22          the cost of emission allowances provided under Fed-  
23          eral law might pose significant harm to the economy;  
24          and

1           (3) to submit to the President and Congress,  
2           and publish on the Internet, quarterly reports—

3           (A) describing—

4                 (i) the status of the emission allow-  
5                 ance market established under this Act;

6                 (ii) the economic cost and benefits of  
7                 the market, regional, industrial, and con-  
8                 sumer responses to the market;

9                 (iii) where practicable, energy invest-  
10                 ment responses to the market;

11                 (iv) any corrective measures that  
12                 should be carried out to relieve excessive  
13                 net costs of the market;

14                 (v) plans to compensate for those  
15                 measures to ensure that the long-term  
16                 emission-reduction goals of this Act are  
17                 achieved; and

18                 (vi) any instances of actual or poten-  
19                 tial fraud on, or manipulation of, the mar-  
20                 ket that the Board has identified, and the  
21                 effects of such fraud or manipulation;

22           (B) that are timely and succinct to ensure  
23           regular monitoring of market trends; and

24           (C) that are prepared independently by the  
25           Board.

1 (c) MEMBERSHIP.—

2 (1) COMPOSITION.—The Board shall be com-  
3 posed of—

4 (A) 7 members who are citizens of the  
5 United States, to be appointed by the Presi-  
6 dent, by and with the advice and consent of the  
7 Senate; and

8 (B) an advisor who is a scientist with ex-  
9 pertise in climate change and the effects of cli-  
10 mate change on the environment, to be ap-  
11 pointed by the President, by and with the ad-  
12 vice and consent of the Senate.

13 (2) REQUIREMENTS.—In appointing members  
14 of the Board under paragraph (1), the President  
15 shall—

16 (A) ensure fair representation of the finan-  
17 cial, agricultural, industrial, and commercial  
18 sectors, and the geographical regions, of the  
19 United States, and include a representative of  
20 consumer interests;

21 (B) appoint not more than 1 member from  
22 each such geographical region; and

23 (C) ensure that not more than 4 members  
24 of the Board serving at any time are affiliated  
25 with the same political party.

## 1 (3) COMPENSATION.—

2 (A) IN GENERAL.—A member of the Board  
3 shall be compensated at a rate equal to the  
4 daily equivalent of the annual rate of basic pay  
5 prescribed for level II of the Executive Schedule  
6 under section 5313 of title 5, United States  
7 Code, for each day (including travel time) dur-  
8 ing which the member is engaged in the per-  
9 formance of the duties of the Board.

10 (B) CHAIRPERSON.—The Chairperson of  
11 the Board shall be compensated at a rate equal  
12 to the daily equivalent of the annual rate of  
13 basic pay prescribed for level I of the Executive  
14 Schedule under section 5312 of title 5, United  
15 States Code, for each day (including travel  
16 time) during which the member is engaged in  
17 the performance of the duties of the Board.

## 18 (4) PROHIBITIONS.—

19 (A) CONFLICTS OF INTEREST.—An indi-  
20 vidual employed by, or holding any official rela-  
21 tionship (including any shareholder) with, any  
22 entity engaged in the generation, transmission,  
23 distribution, or sale of energy, an individual  
24 who has any pecuniary interest in the genera-  
25 tion, transmission, distribution, or sale of en-



1           ergy, or an individual who has a pecuniary in-  
2           terest in the implementation of this Act, shall  
3           not be appointed to the Board under this sub-  
4           section.

5                   (B) NO OTHER EMPLOYMENT.—A member  
6           of the Board shall not hold any other employ-  
7           ment during the term of service of the member.

8           (d) TERM; VACANCIES.—

9                   (1) TERM.—

10                   (A) IN GENERAL.—The term of a member  
11           of the Board shall be 14 years, except that the  
12           members first appointed to the Board shall be  
13           appointed for terms in a manner that ensures  
14           that—

15                           (i) the term of not more than 1 mem-  
16           ber shall expire during any 2-year period;  
17           and

18                           (ii) no member serves a term of more  
19           than 14 years.

20                   (B) OATH OF OFFICE.—A member shall  
21           take the oath of office of the Board by not later  
22           than 15 days after the date on which the mem-  
23           ber is appointed under subsection (e)(1).

24                   (C) REMOVAL.—

1 (i) IN GENERAL.—A member may be  
2 removed from the Board on determination  
3 of the President for cause.

4 (ii) NOTIFICATION.—Not later than  
5 30 days before removing a member from  
6 the Board for cause under clause (i), the  
7 President shall provide to Congress an ad-  
8 vance notification of the determination by  
9 the President to remove the member.

10 (2) VACANCIES.—

11 (A) IN GENERAL.—A vacancy on the  
12 Board—

13 (i) shall not affect the powers of the  
14 Board; and

15 (ii) shall be filled in the same manner  
16 as the original appointment was made.

17 (B) SERVICE UNTIL NEW APPOINTMENT.—

18 A member of the Board the term of whom has  
19 expired or otherwise been terminated shall con-  
20 tinue to serve until the date on which a replace-  
21 ment is appointed under subparagraph (A)(ii),  
22 if the President determines that service to be  
23 appropriate.

24 (e) CHAIRPERSON AND VICE-CHAIRPERSON.—Of  
25 members of the Board, the President shall appoint—

1           (1) 1 member to serve as Chairperson of the  
2 Board for a term of 4 years; and

3           (2) 1 member to serve as Vice-Chairperson of  
4 the Board for a term of 4 years.

5 (f) MEETINGS.—

6           (1) INITIAL MEETING.—The Board shall hold  
7 the initial meeting of the Board as soon as prac-  
8 ticable after the date on which all members have  
9 been appointed to the Board under subsection  
10 (c)(1).

11           (2) PRESIDING OFFICER.—A meeting of the  
12 Board shall be presided over by—

13                   (A) the Chairperson;

14                   (B) in any case in which the Chairperson  
15 is absent, the Vice-Chairperson; or

16                   (C) in any case in which the Chairperson  
17 and Vice-Chairperson are absent, a chairperson  
18 pro tempore, to be elected by the members of  
19 the Board.

20           (3) QUORUM.—Four members of the Board  
21 shall constitute a quorum for a meeting of the  
22 Board.

23           (4) OPEN MEETINGS.—The Board shall be sub-  
24 ject to section 552b of title 5, United States Code

1 (commonly known as the “Government in the Sun-  
2 shine Act”).

3 (g) RECORDS.—The Board shall be subject to section  
4 552 of title 5, United States Code (commonly known as  
5 the “Freedom of Information Act”).

6 (h) REVIEW BY GOVERNMENT ACCOUNTABILITY OF-  
7 FICE.—Not later than January 1, 2013, and annually  
8 thereafter, the Comptroller General of the United States  
9 shall conduct a review of the efficacy of the Board in ful-  
10 filling the purposes and duties of the Board under this  
11 subtitle.

12 **SEC. 2603. DUTIES.**

13 (a) INFORMATION GATHERING.—

14 (1) AUTHORITY.—The Board shall collect and  
15 analyze relevant market information to promote a  
16 full understanding of the dynamics of the emission  
17 allowance market established under this Act.

18 (2) INFORMATION.—The Board shall gather  
19 such information as the Board determines to be ap-  
20 propriate regarding the status of the market, includ-  
21 ing information relating to—

22 (A) emission allowance allocation and  
23 availability;

24 (B) the price of emission allowances;

1 (C) macro- and micro-economic effects of  
2 unexpected significant increases and decreases  
3 in emission allowance prices, or shifts in the  
4 emission allowance market, should those in-  
5 creases, decreases, or shifts occur;

6 (D) economic effect thresholds that could  
7 warrant implementation of cost relief measures  
8 described in section 2604(a) after the initial 2-  
9 year period described in subsection (d)(2);

10 (E) in the event any cost relief measures  
11 described in section 2604(a) are taken, the ef-  
12 fects of those measures on the market;

13 (F) maximum levels of cost relief measures  
14 that are necessary to achieve avoidance of eco-  
15 nomic harm and preserve achievement of the  
16 purposes of this Act; and

17 (G) the success of the market in promoting  
18 achievement of the purposes of this Act.

19 (b) TREATMENT AS PRIMARY ACTIVITY.—

20 (1) IN GENERAL.—During the initial 2-year pe-  
21 riod of operation of the Board, information gath-  
22 ering under subsection (a) shall be the primary ac-  
23 tivity of the Board.

24 (2) SUBSEQUENT AUTHORITY.—After the 2-  
25 year period described in paragraph (1), the Board

1 shall assume authority to implement the cost-relief  
2 measures described in section 2604(a).

3 (c) STUDY.—

4 (1) IN GENERAL.—During the 2-year period be-  
5 ginning on the date on which the emission allowance  
6 market established under this Act begins operation,  
7 the Board shall conduct a study of other markets for  
8 tradeable permits to emit covered greenhouse gases.

9 (2) REPORT.—Not later than 180 days after  
10 the beginning of the period described in paragraph  
11 (1), the Board shall submit to Congress, and publish  
12 on the Internet, a report describing the status of the  
13 market, specifically with respect to volatility within  
14 the market and the average price of emission allow-  
15 ances during that 180-day period.

16 (d) EMPLOYMENT OF COST RELIEF MEASURES.—

17 (1) IN GENERAL.—If the Board determines  
18 that the emission allowance market established  
19 under this Act poses a significant harm to the econ-  
20 omy of the United States, the Board shall carry out  
21 such cost relief measures relating to that market as  
22 the Board determines to be appropriate under sec-  
23 tion 2604(a).

24 (2) INITIAL PERIOD.—During the 2-year period  
25 beginning on the date on which the emission allow-

1       ance market established under this Act begins oper-  
2       ation, if the Board determines that the average daily  
3       closing price of emission allowances during a 180-  
4       day period exceeds the upper range of the estimate  
5       provided under section 2605, the Board shall—

6               (A) increase the quantity of emission al-  
7               lowances that covered facilities may borrow  
8               from the prescribed allocations of the covered  
9               facilities for future years; and

10              (B) take subsequent action as described in  
11              section 2604(a)(2).

12              (3) REQUIREMENTS.—Any action carried out  
13              pursuant to this subsection shall be subject to the  
14              requirements of section 2604(a)(3)(B).

15              (e) REPORTS.—The Board shall submit to the Presi-  
16              dent and Congress quarterly reports—

17              (1) describing the status of the emission allow-  
18              ance market established under this Act, the eco-  
19              nomic effects of the market, regional, industrial, and  
20              consumer responses to the market, energy invest-  
21              ment responses to the market, the effects on the  
22              market of any fraud on, or manipulation of, the  
23              market that the Board has identified, any corrective  
24              measures that should be carried out to relieve exces-

1       sive costs of the market, and plans to compensate  
2       for those measures; and

3               (2) that are prepared independently by the  
4       Board, and not in partnership with Federal agen-  
5       cies.

6 **SEC. 2604. POWERS.**

7       (a) COST RELIEF MEASURES.—

8               (1) IN GENERAL.—Beginning on the day after  
9       the date of expiration of the 2-year period described  
10       in section 2603(b), the Board may carry out 1 or  
11       more of the following cost relief measures to ensure  
12       functioning, stable, and efficient markets for emis-  
13       sion allowances:

14               (A) Increase the quantity of emission al-  
15       lowances that covered facilities may borrow  
16       from the prescribed allocations of the covered  
17       facilities for future years.

18               (B) Expand the period during which a cov-  
19       ered facility may repay the Administrator for  
20       an emission allowance as described in subpara-  
21       graph (A).

22               (C) Lower the interest rate at which an  
23       emission allowance may be borrowed as de-  
24       scribed in subparagraph (A).



1           (D) Increase the quantity of emission al-  
2           lowances obtained on a foreign greenhouse gas  
3           emissions trading market that the owner or op-  
4           erator of any covered facility may use to satisfy  
5           the allowance submission requirement of the  
6           covered facility under section 1202(a), on the  
7           condition that the Administrator has certified  
8           the market in accordance with the regulations  
9           promulgated pursuant to section 2502(a).

10           (E) Increase the quantity of offset allow-  
11           ances generated in accordance with subtitle D  
12           that the owner or operator of any covered facil-  
13           ity may use to satisfy the total allowance sub-  
14           mission requirement of the covered facility  
15           under section 1202(a).

16           (F) Expand the total quantity of emission  
17           allowances made available to all covered facili-  
18           ties at any given time by borrowing against the  
19           total allowable quantity of emission allowances  
20           to be provided for future years.

21           (2) SUBSEQUENT ACTIONS.—On determination  
22           by the Board to carry out a cost relief measure pur-  
23           suant to paragraph (1), the Board shall—

24                   (A) allow the cost relief measure to be  
25                   used only during the applicable allocation year;

1 (B) exercise the cost relief measure incre-  
2 mentally, and only as needed to avoid signifi-  
3 cant economic harm during the applicable allo-  
4 cation year;

5 (C) specify the terms of the relief to be  
6 achieved using the cost relief measure, includ-  
7 ing requirements for entity-level or national  
8 market-level compensation to be achieved by a  
9 specific date or within a specific time period;

10 (D) in accordance with section 2603(e),  
11 submit to the President and Congress a report  
12 describing the actions carried out by the Board  
13 and recommendations for the terms under  
14 which the cost relief measure should be author-  
15 ized by Congress and carried out by Federal en-  
16 tities; and

17 (E) evaluate, at the end of the applicable  
18 allocation year, actions that need to be carried  
19 out during subsequent years to compensate for  
20 any cost relief measure carried out during the  
21 applicable allocation year.

22 (3) ACTION ON EXPANSION OF BORROWING.—

23 (A) IN GENERAL.—If the Board carries  
24 out a cost relief measure pursuant to paragraph  
25 (1) that results in the expansion of borrowing

1 of emission allowances under this Act, and if  
2 the average daily closing price of emission al-  
3 lowances for the 180-day period beginning on  
4 the date on which borrowing is so expanded ex-  
5 ceeds the upper range of the estimate provided  
6 under section 2605, the Board shall increase  
7 the quantity of emission allowances available for  
8 the applicable allocation year in accordance  
9 with this paragraph.

10 (B) REQUIREMENTS.—An increase in the  
11 quantity of emission allowances under subpara-  
12 graph (A) shall—

13 (i) apply to all covered facilities;

14 (ii) be allocated in accordance with  
15 the applicable formulas and procedures es-  
16 tablished under this Act;

17 (iii) be equal to not more than 5 per-  
18 cent of the total quantity of emission al-  
19 lowances otherwise available for the appli-  
20 cable allocation year under this Act;

21 (iv) remain in effect only for the ap-  
22 plicable allocation year;

23 (v) specify the date by which the in-  
24 crease shall be repaid by covered facilities  
25 through a proportionate reduction of emis-

1                   sion allowances available for subsequent al-  
2                   location years; and

3                   (vi) require the repayment under  
4                   clause (v) to be made by not later than the  
5                   date that is 15 years after the date on  
6                   which the increase is provided.

7           (b) ASSESSMENTS.—Not more frequently than semi-  
8 annually, the Board may levy on owners and operators of  
9 covered facilities an assessment sufficient to pay the esti-  
10 mated expenses of the Board and the salaries of members  
11 of and employees of the Board during the 180-day period  
12 beginning on the date on which the assessment is levied,  
13 taking into account any deficit carried forward from the  
14 preceding 180-day period.

15           (c) LIMITATIONS.—Nothing in this section gives the  
16 Board the authority—

17                   (1) to consider or prescribe entity-level petitions  
18                   for relief from the costs of an emission allowance al-  
19                   location or trading program established under Fed-  
20                   eral law;

21                   (2) to carry out any investigative or punitive  
22                   process under the jurisdiction of any Federal or  
23                   State court;

1           (3) to interfere with, modify, or adjust any  
2           emission allowance allocation scheme established  
3           under Federal law; or

4           (4) to modify the total quantity of emission al-  
5           lowances issued under this Act for the period of cal-  
6           endar years 2012 through 2050.

7   **SEC. 2605. ESTIMATE OF COSTS TO ECONOMY OF LIMITING**  
8                                   **GREENHOUSE GAS EMISSIONS.**

9           Not later than July 1, 2014, the Administrator, using  
10          economic and scientific analyses, shall submit to Congress  
11          a report that describes—

12                 (1) the projected price range at which emission  
13                 allowances are expected to trade during the 2-year  
14                 period of the initial greenhouse gas emission market  
15                 established under Federal law; and

16                 (2) the projected impact of that market on the  
17                 economy of the United States.

18                                 **TITLE III—ALLOCATING AND**  
19                                 **DISTRIBUTING ALLOWANCES**  
20   **Subtitle A—Auctions**

21   **SEC. 3101. ALLOCATION FOR DEPOSITS INTO DEFICIT RE-**  
22                                   **DUCTION FUND.**

23           (a) ESTABLISHMENT.—There is established in the  
24          Treasury a fund to be known as the “Deficit Reduction  
25          Fund” (referred to in this section as the “Fund”).

1 (b) APPROPRIATIONS.—No disbursements shall be  
 2 made from the Fund except pursuant to an appropriation  
 3 Act.

4 (c) ALLOCATION.—Not later than April 1, 2011, and  
 5 annually thereafter through calendar year 2049, the Ad-  
 6 ministrator shall allocate to the Corporation a percentage  
 7 of the quantity of emission allowances established for the  
 8 following calendar year, as follows:

<b>Year</b>	<b>Percentage</b>
2012 .....	6.10
2013 .....	6.33
2014 .....	6.56
2015 .....	6.79
2016 .....	7.02
2017 .....	7.25
2018 .....	7.71
2019 .....	7.94
2020 .....	8.40
2021 .....	9.09
2022 .....	9.43
2023 .....	9.89
2024 .....	10.52
2025 .....	11.16
2026 .....	11.85
2027 .....	12.77
2028 .....	13.46
2029 .....	14.15
2030 .....	14.43
2031 .....	15.99
2032 .....	15.99
2033 .....	15.99
2034 .....	15.99
2035 .....	15.99
2036 .....	15.99
2037 .....	15.99
2038 .....	15.99
2039 .....	15.99
2040 .....	15.99
2041 .....	15.99
2042 .....	15.99
2043 .....	15.99
2044 .....	15.99
2045 .....	15.99
2046 .....	15.99

Year	Percentage
2047 .....	15.99
2048 .....	15.99
2049 .....	15.99
2050 .....	15.99

1       (d) AUCTIONING.—Not later than 330 days before  
2 the beginning of a calendar year identified in the table  
3 contained in subsection (c), the Corporation shall auction  
4 all of the emission allowances allocated to the Corporation  
5 for the calendar year under subsection (c).

6       (e) DEPOSITS.—The Corporation shall deposit all  
7 proceeds of auctions conducted pursuant to subsection (d),  
8 immediately upon receipt of those proceeds, in the Fund.

9 **SEC. 3102. ALLOCATION FOR EARLY AUCTIONS.**

10       Not later than 180 days after the date of enactment  
11 of this Act, the Administrator shall allocate 5 percent of  
12 the quantity of remainder emission allowances for cal-  
13 endar year 2012, 3 percent of the quantity of remainder  
14 emission allowances for calendar year 2013, and 1 percent  
15 of the quantity of remainder emission allowances for cal-  
16 endar 2014, to the Corporation for early auctioning in ac-  
17 cordance with section 4301.

18 **SEC. 3103. ALLOCATION FOR ANNUAL AUCTIONS.**

19       Not later than April 1, 2011, and annually thereafter  
20 through calendar year 2049, the Administrator shall allo-  
21 cate to the Corporation for annual auctioning a percentage

- 1 of the quantity of remainder emission allowances for the  
 2 following calendar year, as follows:

Calendar Year	Percentage of Quantity of Remainder Emission Allowances Allocated to the Corporation
2012	21.5
2013	24.5
2014	27.5
2015	29.5
2016	30.5
2017	31.5
2018	33.5
2019	34.5
2020	36.5
2021	39.5
2022	41
2023	43
2024	45.75
2025	48.5
2026	51.5
2027	55.5
2028	58.5
2029	61.5
2030	62.75
2031	69.5
2032	69.5
2033	69.5
2034	69.5
2035	69.5



Calendar Year	Percentage of Quantity of Remainder Emission Allowances Allocated to the Corporation
2036	69.5
2037	69.5
2038	69.5
2039	69.5
2040	69.5
2041	69.5
2042	69.5
2043	69.5
2044	69.5
2045	69.5
2046	69.5
2047	69.5
2048	69.5
2049	69.5
2050	69.5

## 1                   **Subtitle B—Early Action**

### 2   **SEC. 3201. ALLOCATION.**

3           Not later than 2 years after the date of enactment  
4 of this Act, the Administrator shall allocate to owners or  
5 operators of covered facilities and other facilities that emit  
6 greenhouse gas, in recognition of actions of the owners  
7 and operators taken since January 1, 1994, that resulted  
8 in verified and credible reductions of greenhouse gas emis-  
9 sions—

1           (1) 5 percent of the quantity of remainder  
2           emission allowances for calendar year 2012;

3           (2) 4 percent of the quantity of remainder  
4           emission allowances for calendar year 2013;

5           (3) 3 percent of the quantity of remainder  
6           emission allowances for calendar year 2014;

7           (4) 2 percent of the quantity of remainder  
8           emission allowances for calendar year 2015; and

9           (5) 1 percent of the quantity of remainder  
10          emission allowances for calendar year 2016.

11 **SEC. 3202. DISTRIBUTION.**

12          (a) **IN GENERAL.**—Not later than 1 year after the  
13 date of enactment of this Act, the Administrator shall es-  
14 tablish, by regulation, procedures and standards for use  
15 in distributing, to owners and operators of covered facili-  
16 ties and other facilities that emit greenhouse gas, emission  
17 allowances allocated under section 3201.

18          (b) **CONSIDERATION.**—The procedures and standards  
19 established under subsection (a) shall provide for consider-  
20 ation of verified and credible emission reductions reg-  
21 istered before the date of enactment of this Act under—

22           (1) the Climate Leaders Program, or any other  
23           voluntary greenhouse gas reduction program of the  
24           United States Environmental Protection Agency and  
25           United States Department of Energy;



1           (1) automatically adjust the rates charged by  
2           natural gas and electric utilities to fully recover fixed  
3           costs of service without regard to whether their ac-  
4           tual sales are higher or lower than the forecast of  
5           sales on which the tariffed rates were based; and

6           (2) make cost-effective energy-efficiency expend-  
7           itures by investor-owned natural gas or electric utili-  
8           ties at least as rewarding to their shareholders as  
9           power or energy purchases, or expenditures on new  
10          energy supplies or infrastructure.

11          (b) ALLOCATION FOR BUILDING EFFICIENCY.—Not  
12          later than January 1, 2012, and annually thereafter  
13          through January 1, 2050, the Administrator shall allocate  
14          1 percent of the quantity of remainder emission allowances  
15          among States that are in compliance with section 304(c)  
16          of the Energy Conservation and Production Act (as  
17          amended by section 5201).

18          (c) DISTRIBUTION.—Not later than 2 years after the  
19          date of enactment of this Act, the Administrator shall es-  
20          tablish procedures and standards for the distribution of  
21          emission allowances to States in accordance with sub-  
22          sections (a) and (b).

23          (d) USE.—Any State receiving emission allowances  
24          under this section for a calendar year shall retire or use,  
25          in 1 or more of the ways described in section 3303(c)(1),

1 not less than 90 percent of the emission allowances allo-  
2 cated to the State (or proceeds of the sale of those allow-  
3 ances) under this section for the calendar year.

4 **SEC. 3302. ALLOCATION FOR STATES WITH PROGRAMS**  
5 **THAT EXCEED FEDERAL EMISSION REDUC-**  
6 **TION TARGETS.**

7 (a) ALLOCATION.—Not later than April 1, 2011, and  
8 annually thereafter through calendar year 2049, the Ad-  
9 ministrator shall allocate 2 percent of the quantity of re-  
10 mainder emission allowances for the following calendar  
11 year among States that have—

12 (1) before the date of enactment of this Act, en-  
13 acted statewide greenhouse gas emission reduction  
14 targets that are more stringent than the nationwide  
15 targets established under subtitle B of title I; and

16 (2) by the time of an allocation under this sub-  
17 section, imposed on covered facilities within the  
18 States aggregate greenhouse gas emission limitations  
19 more stringent than those imposed on covered facili-  
20 ties under subtitle B of title I.

21 (b) DISTRIBUTION.—Not later than 2 years after the  
22 date of enactment of this Act, the Administrator shall es-  
23 tablish procedures and standards for use in distributing  
24 emission allowances among States in accordance with sub-  
25 section (a).

1 (c) USE.—Any State receiving emission allowances  
2 under this section for a calendar year shall retire or use,  
3 in 1 or more of the ways described in section 3303(c)(1),  
4 not less than 90 percent of the emission allowances allo-  
5 cated to the State (or proceeds of the sale of those allow-  
6 ances) under this section for the calendar year.

7 **SEC. 3303. GENERAL ALLOCATION.**

8 (a) ALLOCATION.—Subject to subsection (d)(3), not  
9 later than April 1, 2011, and annually thereafter through  
10 calendar year 2049, the Administrator shall allocate 5 per-  
11 cent of the quantity of remainder emission allowances for  
12 the following calendar year among States.

13 (b) DISTRIBUTION.—The allowances available for al-  
14 location to States under subsection (a) for a calendar year  
15 shall be distributed as follows:

16 (1) For each calendar year,  $\frac{1}{3}$  of the quantity  
17 of allowances available for allocation to States under  
18 subsection (a) shall be distributed among individual  
19 States based on the proportion that—

20 (A) the expenditures of a State for the  
21 low-income home energy assistance program es-  
22 tablished under the Low-Income Home Energy  
23 Assistance Act of 1981 (42 U.S.C. 8621 et  
24 seq.) for the preceding calendar year; bears to

1 (B) the expenditures of all States for that  
2 program for the preceding calendar year.

3 (2) For each calendar year,  $\frac{1}{3}$  of the quantity  
4 of allowances available for allocation to States under  
5 subsection (a) shall be distributed among the States  
6 based on the proportion that—

7 (A) the population of a State, as deter-  
8 mined by the most recent decennial census pre-  
9 ceeding the calendar year for which the alloca-  
10 tion regulations are for the allocation year;  
11 bears to

12 (B) the population of all States, as deter-  
13 mined by that census.

14 (3) For each calendar year,  $\frac{1}{3}$  of the quantity  
15 of allowances available for allocation to States under  
16 subsection (a) shall be distributed among the States  
17 based on the proportion that—

18 (A) the quantity of carbon dioxide that  
19 would be emitted assuming that all of the coal  
20 that is mined, natural gas that is processed,  
21 and petroleum that is refined within the bound-  
22 aries of a State during the preceding year is  
23 completely combusted and that none of the car-  
24 bon dioxide emissions are captured, as deter-  
25 mined by the Secretary of Energy; bears to

1 (B) the aggregate quantity of carbon diox-  
2 ide that would be emitted assuming that all of  
3 the coal that is mined, natural gas that is proc-  
4 essed, and petroleum that is refined in all  
5 States for the preceding year is completely com-  
6 busted and that none of the carbon dioxide  
7 emissions are captured, as determined by the  
8 Secretary of Energy.

9 (c) USE.—

10 (1) IN GENERAL.—During any calendar year, a  
11 State shall retire or use in 1 or more of the fol-  
12 lowing ways not less than 90 percent of the allow-  
13 ances allocated to the State (or proceeds of sale of  
14 those emission allowances) under this section for  
15 that calendar year:

16 (A) To mitigate impacts on low-income en-  
17 ergy consumers.

18 (B) To promote energy efficiency (includ-  
19 ing support of electricity and natural gas de-  
20 mand reduction, waste minimization, and recy-  
21 cling programs).

22 (C) To promote investment in nonemitting  
23 electricity generation technology, including  
24 planning for the siting of facilities employing



1 that technology in States (including territorial  
2 waters of States).

3 (D) To improve public transportation and  
4 passenger rail service and otherwise promote re-  
5 ductions in vehicle miles traveled.

6 (E) To encourage advances in energy tech-  
7 nology that reduce or sequester greenhouse gas  
8 emissions.

9 (F) To address local or regional impacts of  
10 climate change, including by accommodating,  
11 protecting, or relocating affected communities  
12 and public infrastructure.

13 (G) To collect, evaluate, disseminate, and  
14 use information necessary for affected coastal  
15 communities to adapt to climate change (such  
16 as information derived from inundation pre-  
17 diction systems).

18 (H) To mitigate obstacles to investment by  
19 new entrants in electricity generation markets  
20 and energy-intensive manufacturing sectors.

21 (I) To address local or regional impacts of  
22 climate change policy, including providing as-  
23 sistance to displaced workers.

1           (J) To mitigate impacts on energy-inten-  
2           sive industries in internationally competitive  
3           markets.

4           (K) To reduce hazardous fuels, and to pre-  
5           vent and suppress wildland fire.

6           (L) To fund rural, municipal, and agricul-  
7           tural water projects that are consistent with the  
8           sustainable use of water resources.

9           (M) To fund any other purpose the States  
10          determine to be necessary to mitigate any nega-  
11          tive economic impacts as a result of—

12                   (i) global warming; or

13                   (ii) new regulatory requirements as a  
14          result of this Act.

15          (2) DEADLINE.—A State shall distribute or sell  
16          allowances for use in accordance with paragraph (1)  
17          by not later than the beginning of each allowance al-  
18          location year.

19          (3) RETURN OF ALLOWANCES.—Not later than  
20          330 days before the end of each allowance allocation  
21          year, a State shall return to the Administrator any  
22          allowances not distributed by the deadline under  
23          paragraph (2).

24          (4) USE FOR RECYCLING.—During any cal-  
25          endar year, a State shall retire or use not less than

1 5 percent of the emission allowances allocated to the  
2 State (or proceeds of sale of those emission allow-  
3 ances) under this section for increasing recycling  
4 rates through activities such as—

5 (A) improving recycling infrastructure;

6 (B) increasing public education on the ben-  
7 efits of recycling, particularly with respect to  
8 greenhouse gases;

9 (C) improving residential, commercial, and  
10 industrial collection of recyclables;

11 (D) improving recycling system efficiency;

12 (E) increasing recycling yields; and

13 (F) improving the quality and usefulness  
14 of recycled materials.

15 (d) PROGRAM FOR TRIBAL COMMUNITIES.—

16 (1) ESTABLISHMENT.—Not later than 3 years  
17 after the date of enactment of this Act, the Adminis-  
18 trator, in consultation with the Secretary of the In-  
19 terior, shall by regulation establish a program for  
20 tribal communities—

21 (A) that is designed to deliver assistance to  
22 tribal communities within the United States  
23 that face disruption or dislocation as a result of  
24 global climate change; and

1 (B) under which the Administrator shall  
2 distribute 0.5 percent of the quantity of remain-  
3 der emission allowances for each calendar  
4 among tribal governments of the tribal commu-  
5 nities described in subparagraph (A).

6 (2) ALLOCATION.—Beginning in the first cal-  
7 endar year that begins after promulgation of the  
8 regulations referred to in paragraph (1), and annu-  
9 ally thereafter until calendar year 2050, the Admin-  
10 istrator shall allocate 0.5 percent of the quantity of  
11 remainder emission allowances for each calendar  
12 year to the program established under paragraph  
13 (1).

14 **SEC. 3304. ALLOCATION FOR MASS TRANSIT.**

15 (a) ALLOCATION.—Not later than April 1, 2011, and  
16 annually thereafter through calendar year 2049, the Ad-  
17 ministrator shall allocate 1 percent of the quantity of re-  
18 mainder emission allowances for the following calendar  
19 year among States.

20 (b) DISTRIBUTION.—The emission allowances avail-  
21 able for allocation to States under subsection (a) for a cal-  
22 endar year shall be distributed among the States based  
23 on the formula established in section 104(b)(1)(A) of title  
24 23, United States Code.

1 (c) USE.—During any calendar year, a State receiv-  
2 ing emission allowances under this section shall—

3 (1) use the emission allowances (or proceeds of  
4 sale of those emission allowances) only for—

5 (A) the operating costs of State and mu-  
6 nicipal mass transit systems;

7 (B) efforts to increase mass transit service  
8 and ridership in the State, including by adding  
9 new mass transit systems; and

10 (C) efforts to increase the efficiency of  
11 mass transit systems through the development,  
12 purchase, or deployment of innovative tech-  
13 nologies that reduce emissions of greenhouse  
14 gases; and

15 (2) shall ensure that use of the emission allow-  
16 ances (or proceeds of sale of those emission allow-  
17 ances) by the State for the purposes described in  
18 paragraph (1) is geographically distributed as fol-  
19 lows:

20 (A) At least 60 percent in urban areas.

21 (B) At least 20 percent in areas that are  
22 not urban areas.

23 (C) 20 percent as the State determines to  
24 be appropriate.

1 (d) RETURN OF UNUSED EMISSION ALLOWANCES.—  
2 Any State receiving emission allowances under this section  
3 shall return to the Administrator any such emission allow-  
4 ance that the State has failed to use in accordance with  
5 subsection (c) by not later than 5 years after the date of  
6 receipt of the emission allowance from the Administrator.

7 (e) USE OF RETURNED EMISSION ALLOWANCES.—  
8 The Administrator shall immediately transfer to the Cor-  
9 poration for auctioning under section 4302 any emission  
10 allowances returned to the Administrator under subsection  
11 (d).

## 12 **Subtitle D—Electricity Consumers**

### 13 **SEC. 3401. ALLOCATION.**

14 Not later than April 1, 2011, and annually thereafter  
15 through calendar year 2049, the Administrator shall allo-  
16 cate among load-serving entities 9 percent of the quantity  
17 of remainder emission allowances for the following cal-  
18 endar year.

### 19 **SEC. 3402. DISTRIBUTION.**

20 (a) IN GENERAL.—For each calendar year, the emis-  
21 sion allowances allocated under section 3401 shall be dis-  
22 tributed by the Administrator to each load-serving entity,  
23 including each rural electric cooperative that serves as a  
24 load-serving entity in a State that is not a participant in

1 the pilot program established under section 3903(a), based  
2 on the proportion that—

3 (1) the quantity of electricity delivered by the  
4 load-serving entity during the 3 calendar years pre-  
5 ceding the calendar year for which the emission al-  
6 lowances are distributed, adjusted upward for elec-  
7 tricity not delivered as a result of consumer energy-  
8 efficiency programs implemented by the load-serving  
9 entity and verified by the regulatory agency of the  
10 load-serving entity; bears to

11 (2) the total quantity of electricity delivered by  
12 all load-serving entities during those 3 calendar  
13 years.

14 (b) BASIS.—The Administrator shall base the deter-  
15 mination of the quantity of electricity delivered by a load-  
16 serving entity for the purpose of subsection (a) on the  
17 most recent data available in annual reports filed with the  
18 Energy Information Administration of the Department of  
19 Energy.

20 **SEC. 3403. USE.**

21 (a) IN GENERAL.—Any load-serving entity that ac-  
22 cepts emission allowances distributed under section 3402  
23 shall—

1           (1) sell each emission allowance distributed to  
2           the load-serving entity by not later than 1 year after  
3           receiving the emission allowance; and

4           (2) pursue fair market value for each emission  
5           allowance sold in accordance with paragraph (1).

6           (b) PROCEEDS.—All proceeds from the sale of emis-  
7           sion allowances under subsection (a) shall be used solely—

8           (1) to mitigate economic impacts on low- and  
9           middle-income energy consumers, including by re-  
10          ducing transmission charges or issuing rebates; and

11          (2) to promote energy efficiency on the part of  
12          energy consumers.

13          (c) PROHIBITION ON REBATES.—No load-serving en-  
14          tity may use any proceeds from the sale of emission allow-  
15          ances under subsection (a) to provide to any consumer a  
16          rebate that is based on the quantity of electricity used by  
17          the consumer.

18       **SEC. 3404. REPORTING.**

19          (a) IN GENERAL.—Each load-serving entity that ac-  
20          cepts emission allowances distributed under section 3402  
21          shall, for each calendar year for which the load-serving  
22          entity accepts emission allowances, submit to the Adminis-  
23          trator a report describing—

24          (1) the date of each sale of each emission allow-  
25          ance during the preceding year;



1           (2) the amount of revenue generated from the  
2           sale of emission allowances during the preceding  
3           year; and

4           (3) how, and to what extent, the load-serving  
5           entity used the proceeds of the sale of the emission  
6           allowances during the preceding year.

7           (b) AVAILABILITY OF REPORTS.—The Administrator  
8           shall make available to the public all reports submitted  
9           by any load-serving entity under subsection (b), including  
10          by publishing those reports on the Internet.

## 11                           **Subtitle E—Natural Gas** 12   **Consumers**

### 13   **SEC. 3501. ALLOCATION.**

14          Not later than April 1, 2011, and annually thereafter  
15          through calendar year 2049, the Administrator shall allo-  
16          cate among natural gas local distribution companies 2 per-  
17          cent of the quantity of remainder emission allowances for  
18          the following calendar year.

### 19   **SEC. 3502. DISTRIBUTION.**

20          For each calendar year, the emission allowances allo-  
21          cated under section 3501 shall be distributed by the Ad-  
22          ministrator to each natural gas local distribution company  
23          based on the proportion that—

24                  (1) the quantity of natural gas delivered by the  
25                  natural gas local distribution company during the 3

1 calendar years preceding the calendar year for which  
2 the emission allowances are distributed, adjusted up-  
3 ward for natural gas not delivered as a result of con-  
4 sumer energy-efficiency programs implemented by  
5 the natural gas local distribution company and  
6 verified by the regulatory agency of the natural gas  
7 local distribution company; bears to

8 (2) the total quantity of natural gas delivered  
9 by all natural gas local distribution companies dur-  
10 ing those 3 calendar years.

11 **SEC. 3503. USE.**

12 (a) IN GENERAL.—Any natural gas local distribution  
13 company that accepts emission allowances distributed  
14 under section 3502 shall—

15 (1) sell each emission allowance distributed to  
16 the natural gas local distribution company by not  
17 later than 1 year after receiving the emission allow-  
18 ance; and

19 (2) pursue fair market value for each emission  
20 allowance sold in accordance with paragraph (1).

21 (b) PROCEEDS.—All proceeds from the sale of emis-  
22 sion allowances under subsection (a) shall be used solely—

23 (1) to mitigate economic impacts on low- and  
24 middle-income energy consumers; and

1           (2) to promote energy efficiency on the part of  
2 energy consumers.

3           (c) PROHIBITION ON REBATES.—No natural gas  
4 local distribution company may use any proceeds from the  
5 sale of emission allowances under subsection (a) to provide  
6 to any consumer a rebate that is based on the quantity  
7 of natural gas used by the consumer.

8 **SEC. 3504. REPORTING.**

9           (a) IN GENERAL.—Each natural gas local distribu-  
10 tion company that accepts emission allowances distributed  
11 under section 3502 shall, for each calendar year for which  
12 the natural gas local distribution company accepts emis-  
13 sion allowances, submit to the Administrator a report de-  
14 scribing—

15           (1) the date of each sale of each emission allow-  
16 ance during the preceding year;

17           (2) the amount of revenue generated from the  
18 sale of emission allowances during the preceding  
19 year; and

20           (3) how, and to what extent, the natural gas  
21 local distribution company used the proceeds of the  
22 sale of the emission allowances during the preceding  
23 year.

24           (b) AVAILABILITY OF REPORTS.—The Administrator  
25 shall make available to the public all reports submitted

1 by any natural gas local distribution company under sub-  
2 section (a), including by publishing those reports on the  
3 Internet.

## 4 **Subtitle F—Bonus Allowances for** 5 **Carbon Capture and Geological** 6 **Sequestration**

### 7 **SEC. 3601. ALLOCATION.**

8 Not later than 3 years after the date of enactment  
9 of this Act, the Administrator shall—

- 10 (1) establish a Bonus Allowance Account; and
- 11 (2) allocate 4 percent of the quantity of remain-  
12 der emission allowances for calendar years 2012  
13 through 2030 to the Bonus Allowance Account.

### 14 **SEC. 3602. QUALIFYING PROJECTS.**

15 (a) **DEFINITIONS.**—In this section:

- 16 (1) **COMMENCED.**—The term “commenced”,  
17 with respect to construction, means that an owner or  
18 operator has obtained the necessary permits to un-  
19 dertake a continuous program of construction and  
20 has entered into a binding contractual obligation,  
21 with substantial financial penalties for cancellation,  
22 to undertake such a program.

- 23 (2) **CONSTRUCTION.**—The term “construction”  
24 means the fabrication, erection, or installation of the

1 technology for the carbon capture and sequestration  
2 project.

3 (b) ELIGIBILITY.—To be eligible to receive emission  
4 allowances under this subtitle, a carbon capture and se-  
5 questration project shall—

6 (1) comply with such criteria and procedures as  
7 the Administrator may establish, including a re-  
8 quirement, as prescribed in subsection (c), for an  
9 annual emissions performance standard for carbon  
10 dioxide emissions from any unit for which allowances  
11 are allocated;

12 (2) sequester, in a geological formation per-  
13 mitted by the Administrator for that purpose in ac-  
14 cordance with regulations promulgated under part C  
15 of the Safe Drinking Water Act (42 U.S.C. 300h et  
16 seq.), carbon dioxide captured from any unit for  
17 which allowances are allocated; and

18 (3) have begun operation during the period be-  
19 ginning on January 1, 2008, and ending on Decem-  
20 ber 31, 2035.

21 (c) EMISSION PERFORMANCE STANDARDS.—Subject  
22 to subsection (d), a carbon capture and sequestration  
23 project shall be eligible to receive emission allowances  
24 under this subtitle only if the project achieves 1 of the  
25 following emissions performance standards for limiting

1 carbon dioxide emissions from the unit on an annual aver-  
2 age basis:

3           (1) For an electric generation unit that is not  
4           a new entrant, an annual emissions rate of not more  
5           than 1,200 pounds of carbon dioxide per megawatt-  
6           hour of net electricity generation, after subtracting  
7           the carbon dioxide that is captured and sequestered.

8           (2) For a new entrant electric generation unit  
9           for which construction of the unit commenced prior  
10          to July 1, 2018, an annual emissions rate of not  
11          more than 800 pounds of carbon dioxide per mega-  
12          watt-hour of net electricity generation, after sub-  
13          tracting the carbon dioxide that is captured and se-  
14          questered.

15          (3) For a new entrant electric generation unit  
16          for which construction of the unit commenced on or  
17          after July 1, 2018, an annual emissions rate of not  
18          more than 350 pounds of carbon dioxide per mega-  
19          watt-hour of net electricity generation, after sub-  
20          tracting the carbon dioxide that is captured and se-  
21          questered.

22          (4) For any unit at a covered facility that is not  
23          an electric generation unit, an annual emissions rate  
24          that is achieved by the capture and sequestration of

1 a minimum of 85 percent of the total carbon dioxide  
2 emissions produced by the unit.

3 (d) ADJUSTMENT OF PERFORMANCE STANDARDS.—

4 (1) IN GENERAL.—The Corporation may adjust  
5 the emissions performance standard for a carbon  
6 capture and sequestration project under subsection  
7 (c) for an electric generation unit that uses subbitu-  
8 minous coal, lignite, or petroleum coke in significant  
9 amounts.

10 (2) REQUIREMENT.—In any case described in  
11 paragraph (1), the performance standard for the  
12 project shall prescribe an annual emissions rate that  
13 requires the project to achieve an equivalent reduc-  
14 tion from uncontrolled carbon dioxide emissions lev-  
15 els from the use of subbituminous coal, lignite, or  
16 petroleum coke, as compared to the emissions that  
17 the project would have achieved if that unit had  
18 combusted only bituminous coal during the par-  
19 ticular year.

20 **SEC. 3603. DISTRIBUTION.**

21 (a) IN GENERAL.—Subject to section 3604, for each  
22 of calendar years 2012 through 2039, the Administrator  
23 shall distribute emission allowances from the Bonus Allow-  
24 ance Account to each qualifying project under this subtitle

1 in a quantity equal to the product obtained by multi-  
 2 plying—

3 (1) the bonus allowance adjustment factor, as  
 4 determined under subsection (b);

5 (2) the number of metric tons of carbon dioxide  
 6 emissions avoided through capture and geologic se-  
 7 questration of emissions by the project; and

8 (3) the bonus allowance rate for that calendar  
 9 year, as provided in the following table:

<b>Year</b>	<b>Bonus Allowance Rate</b>
2012	4.5
2013	4.5
2014	4.5
2015	4.5
2016	4.5
2017	4.5
2018	4.2
2019	3.9
2020	3.6
2021	3.3
2022	3.0
2023	2.7
2024	2.4
2025	2.1
2026	1.8
2027	1.5
2028	1.3
2029	1.1
2030	0.9
2031	0.7
2032	0.5
2033	0.5
2034	0.5
2035	0.5
2036	0.5
2037	0.5
2038	0.5
2039	0.5

10 (b) BONUS ALLOWANCE ADJUSTMENT RATIO.—The  
 11 Administrator shall determine the bonus allowance adjust-



1 ment factor by dividing a carbon dioxide emissions rate  
2 of 350 pounds per megawatt-hour by the annual carbon  
3 dioxide emissions rate, on a pounds per megawatt-hour  
4 basis, that a qualifying project at the electric generation  
5 unit achieved during a particular year, except that—

6 (1) the factor shall be equal to 1 in the case of  
7 a project that qualifies under section 3602(e)(1)  
8 during the first 4 years that emissions allowances  
9 are distributed to the project; and

10 (2) the factor shall not exceed 1 for any quali-  
11 fying project.

12 **SEC. 3604. 10-YEAR LIMIT.**

13 A qualifying project may receive annual emission al-  
14 lowances under this subsection only for—

15 (1) the first 10 years of operation; or

16 (2) if the unit covered by the qualifying project  
17 began operating before January 1, 2012, the period  
18 of calendar years 2012 through 2021.

19 **SEC. 3605. EXHAUSTION OF BONUS ALLOWANCE ACCOUNT.**

20 If, at the beginning of a calendar year, the Adminis-  
21 trator determines that the number of emission allowances  
22 remaining in the Bonus Allowance Account will be insuffi-  
23 cient to allow the distribution, in that calendar year, of  
24 the number of allowances that otherwise would be distrib-

1 uted under section 3603 for the calendar year, the Admin-  
2 istrator shall, for the calendar year—

3 (1) distribute the remaining bonus allowances  
4 only to qualifying projects that were already quali-  
5 fying projects during the preceding calendar year;

6 (2) distribute the remaining bonus allowances  
7 to those qualifying projects on a pro rata basis; and

8 (3) discontinue the program established under  
9 this subtitle as of the date on which the Bonus Al-  
10 lowance Account is projected to be fully used based  
11 on projects already in operation.

## 12 **Subtitle G—Domestic Agriculture** 13 **and Forestry**

### 14 **SEC. 3701. ALLOCATION.**

15 Not later than April 1, 2011, and annually thereafter  
16 through calendar year 2049, the Administrator shall allo-  
17 cate to the Secretary of Agriculture 5 percent of the quan-  
18 tity of remainder emission allowances for the following cal-  
19 endar year for use in—

20 (1) achieving real, verifiable, additional, perma-  
21 nent, and enforceable reductions in greenhouse gas  
22 emissions from the agriculture and forestry sectors  
23 of the United States economy; and

1           (2) achieving real, verifiable, additional, perma-  
2           nent, and enforceable increases in greenhouse gas  
3           sequestration from those sectors.

4 **SEC. 3702. AGRICULTURAL AND FORESTRY GREENHOUSE**  
5 **GAS MANAGEMENT RESEARCH.**

6           (a) REPORT.—Not later than 1 year after the date  
7 of enactment of this Act, the Secretary of Agriculture, in  
8 consultation with scientific and agricultural and forestry  
9 experts, shall prepare and submit to Congress a report  
10 that describes the status of research on agricultural and  
11 forestry greenhouse gas management, including a descrip-  
12 tion of—

13           (1) research on soil carbon sequestration and  
14 other agricultural and forestry greenhouse gas man-  
15 agement that has been carried out;

16           (2) any additional research that is necessary;

17           (3) the proposed priority for additional re-  
18 search;

19           (4) the most appropriate approaches for con-  
20 ducting the additional research; and

21           (5) the extent to which and the manner in  
22 which carbon credits that are specific to agricultural  
23 and forestry operations, including harvested wood  
24 products and the reduction of hazardous fuels to re-

1       duce the risk of uncharacteristically severe wildfires,  
2       should be valued and allotted.

3       (b) STANDARDIZED SYSTEM OF SOIL CARBON MEAS-  
4       UREMENT AND CERTIFICATION FOR THE AGRICULTURAL  
5       AND FORESTRY SECTORS.—

6           (1) IN GENERAL.—As soon as practicable after  
7       the date of enactment of this Act, the Secretary of  
8       Agriculture shall establish a standardized system of  
9       carbon measurement and certification for the agri-  
10      cultural and forestry sectors.

11          (2) ADMINISTRATION.—In establishing the sys-  
12      tem, the Secretary of Agriculture shall—

13           (A) create a standardized system of meas-  
14      urements for agricultural and forestry green-  
15      house gases; and

16           (B) delineate the most appropriate system  
17      of certification of credit by public or private en-  
18      tities.

19      (c) RESEARCH.—After the date of submission of the  
20      report described in paragraph (1), the President and the  
21      Secretary of Agriculture (in collaboration with the member  
22      institutions of higher education of the Consortium for Ag-  
23      ricultural Soil Mitigation of Greenhouse Gases, institu-  
24      tions of higher education, and research entities) shall ini-

1 tiate a program to conduct any additional research that  
2 is necessary.

3 **SEC. 3703. DISTRIBUTION.**

4 (a) IN GENERAL.—Taking into account the report  
5 prepared under section 3702(a), the Secretary of Agri-  
6 culture shall establish, by regulation, a program under  
7 which agricultural and forestry allowances may be distrib-  
8 uted to entities that carry out projects on agricultural and  
9 forest land that achieve real, verifiable, additional, perma-  
10 nent, and enforceable greenhouse gas emission mitigation  
11 benefits.

12 (b) NITROUS OXIDE AND METHANE.—The Secretary  
13 of Agriculture shall ensure that, during any 5-year period,  
14 the average annual percentage of the quantity of remain-  
15 der emission allowances that is distributed to entities  
16 under the program established under subsection (a) spe-  
17 cifically for achieving real, verifiable, additional, perma-  
18 nent, and enforceable reductions in nitrous oxide emis-  
19 sions through soil management or achieving real,  
20 verifiable, additional, permanent, and enforceable reduc-  
21 tions in methane emissions through enteric fermentation  
22 and manure management shall be 0.5 percent.

23 (c) REQUIREMENT.—The Secretary of Agriculture  
24 shall distribute emission allowances under this section in

1 a manner that maximizes the avoidance or reduction of  
2 greenhouse gas emissions.

3 **Subtitle H—International Forest**  
4 **Protection**

5 **SEC. 3801. FINDINGS.**

6 Congress finds that—

7 (1) land-use change and forest sector emissions  
8 account for approximately 20 percent of global  
9 greenhouse gas emissions;

10 (2) land conversion and deforestation are 2 of  
11 the largest sources of greenhouse gas emissions in  
12 the developing world, amounting to roughly 40 per-  
13 cent of the total greenhouse gas emissions of the de-  
14 veloping world;

15 (3) with sufficient data, deforestation rates and  
16 forest carbon stocks can be measured with an ac-  
17 ceptable level of uncertainty; and

18 (4) encouraging reduced deforestation and  
19 other forest carbon activities in other countries  
20 can—

21 (A) provide critical leverage to encourage  
22 voluntary developing country participation in  
23 emission limitation regimes;

1 (B) facilitate greater overall reductions in  
2 greenhouse gas emissions than would otherwise  
3 be practicable; and

4 (C) substantially benefit biodiversity, con-  
5 servation, and indigenous and other forest-de-  
6 pendent people in developing countries.

7 **SEC. 3802. DEFINITION OF FOREST CARBON ACTIVITIES.**

8 In this subtitle, the term “forest carbon activities”  
9 means—

10 (1) activities directed at reducing greenhouse  
11 gas emissions from deforestation and forest degrada-  
12 tion in countries other than the United States; and

13 (2) activities directed at increasing sequestra-  
14 tion of carbon through restoration of forests, and de-  
15 graded land in countries other than the United  
16 States that has not been forested prior to restora-  
17 tion, afforestation, and improved forest manage-  
18 ment, that meet the eligibility requirements promul-  
19 gated under section 3804(a).

20 **SEC. 3803. ALLOCATION.**

21 Not later than April 1, 2011, and annually thereafter  
22 through calendar year 2049, the Administrator shall allo-  
23 cate and distribute 2.5 percent of the quantity of remain-  
24 der emission allowances for the following calendar year for

1 use in carrying out forest carbon activities in countries  
2 other than the United States.

3 **SEC. 3804. DEFINITION AND ELIGIBILITY REQUIREMENTS.**

4 (a) **ELIGIBILITY REQUIREMENTS FOR FOREST CAR-**  
5 **BON ACTIVITIES.**—Not later than 2 years after the date  
6 of enactment of this Act, the Administrator, in consulta-  
7 tion with the Secretary of the Interior, the Secretary of  
8 State, and the Secretary of Agriculture, shall promulgate  
9 eligibility requirements for forest carbon activities directed  
10 at reducing emissions from deforestation and forest deg-  
11 radation, and at sequestration of carbon through restora-  
12 tion of forests and degraded land, afforestation, and im-  
13 proved forest management in countries other than the  
14 United States, including requirements that those activities  
15 be—

16 (1) carried out and managed in accordance with  
17 widely-accepted environmentally sustainable forestry  
18 practices; and

19 (2) designed—

20 (A) to promote native species and restora-  
21 tion of native forests, where practicable; and

22 (B) to avoid the introduction of invasive  
23 nonnative species.

24 (b) **QUALITY CRITERIA FOR FOREST CARBON ALLO-**  
25 **CATIONS.**—Not later than 2 years after the date of enact-



1 ment of this Act, the Administrator, in consultation with  
2 the Secretary of the Interior, the Secretary of State, and  
3 the Secretary of Agriculture, shall promulgate regulations  
4 establishing the requirements for eligibility to receive al-  
5 lowances under this section, including requirements that  
6 ensure that the emission reductions or sequestrations are  
7 real, permanent, additional, verifiable and enforceable,  
8 with reliable measuring and monitoring and appropriate  
9 accounting for leakage.

10 **SEC. 3805. INTERNATIONAL FOREST CARBON ACTIVITIES.**

11 (a) IN GENERAL.—The Administrator, in consulta-  
12 tion with the Secretary of State, shall identify and periodi-  
13 cally update a list of countries that have—

14 (1) demonstrated capacity to participate in  
15 international forest carbon activities, including—

16 (A) sufficient historical data on changes in  
17 national forest carbon stocks;

18 (B) technical capacity to monitor and  
19 measure forest carbon fluxes with an acceptable  
20 level of uncertainty; and

21 (C) institutional capacity to reduce emis-  
22 sions from deforestation and degradation;

23 (2) capped greenhouse gas emissions or other-  
24 wise established a national emission reference sce-  
25 nario based on historical data; and

1           (3) commenced an emission reduction program  
2 for the forest sector.

3           (b) ADDITIONALITY.—

4           (1) REDUCTION IN DEFORESTATION AND FOR-  
5 EST DEGRADATION.—A verified reduction in green-  
6 house gas emissions from deforestation and forest  
7 degradation under a cap or from a nationwide emis-  
8 sions reference scenario described in subsection (a)  
9 shall be—

10                   (A) eligible for distribution of emission al-  
11 lowances under this section; and

12                   (B) considered to satisfy the additionality  
13 criterion.

14           (2) PERIODIC REVIEW OF NATIONAL LEVEL RE-  
15 Ductions IN DEFORESTATION AND DEGRADA-  
16 TION.—The Administrator, in consultation with the  
17 Secretary of State, shall identify and periodically up-  
18 date a list of countries described in subsection (a)  
19 that have—

20                   (A) achieved national-level reductions of  
21 deforestation and degradation below a historical  
22 reference scenario, taking into consideration the  
23 average annual deforestation and degradation  
24 rates of the country and of all countries during  
25 a period of at least 5 years; and

1 (B) demonstrated those reductions using  
2 remote sensing technology that meets inter-  
3 national standards.

4 (3) OTHER FOREST CARBON ACTIVITIES.—A  
5 forest carbon activity, other than a reduction in de-  
6 forestation or forest degradation, shall be eligible for  
7 distribution of emission allowances under this sec-  
8 tion, subject to the quality criteria for forest carbon  
9 activities identified in this Act or in regulations pro-  
10 mulgated under this Act.

11 (c) RECOGNITION OF FOREST CARBON ACTIVI-  
12 TIES.—With respect to countries other than countries de-  
13 scribed in subsection (a), the Administrator—

14 (1) shall recognize forest carbon activities, sub-  
15 ject to the quality criteria for forest carbon activities  
16 identified in this Act and regulations promulgated  
17 under this Act; and

18 (2) is encouraged to identify other incentives,  
19 including economic and market-based incentives, to  
20 encourage developing countries with largely-intact  
21 native forests to protect those forests.

22 **SEC. 3806. REVIEWS AND DISCOUNT.**

23 (a) REVIEWS.—Not later than 3 years after the date  
24 of enactment of this Act, and 5 years thereafter, the Ad-

1 administrator shall conduct a review of the program under  
 2 this subtitle.

3 (b) DISCOUNT.—If, after the date that is 10 years  
 4 after the date of enactment of this Act, the Administrator  
 5 determines that foreign countries that, in the aggregate,  
 6 generate greenhouse gas emissions accounting for more  
 7 than 0.5 percent of global greenhouse gas emissions have  
 8 not capped those emissions, established emissions ref-  
 9 erence scenarios based on historical data, or otherwise re-  
 10 duced total forest emissions, the Administrator may apply  
 11 a discount to distributions of emission allowances to those  
 12 countries under this section.

13 **Subtitle I—Transition Assistance**

14 **SEC. 3901. GENERAL ALLOCATION AND DISTRIBUTION.**

15 (a) GENERAL ALLOCATION.—Not later than April 1,  
 16 2011, and annually thereafter through January 1, 2029,  
 17 the Administrator shall allocate percentages of the quan-  
 18 tity of remainder emission allowances for the following cal-  
 19 endar year as follows:

Calendar Year	Fossil fuel-fired electric power generating facilities	Rural electric cooperatives	Owners and operators of energy intensive manufacturing facilities	Facilities that produce or import petroleum-based fuel	HFC producers and importers
2012	19	1	10	2	2
2013	19	1	10	2	2

Calendar Year	Fossil fuel-fired electric power generating facilities	Rural electric cooperatives	Owners and operators of energy intensive manufacturing facilities	Facilities that produce or import petroleum-based fuel	HFC producers and importers
2014	19	1	10	2	2
2015	19	1	10	2	2
2016	19	1	10	2	2
2017	19	1	10	2	2
2018	18	1	9	2	2
2019	17	1	9	2	2
2020	16	1	8	2	2
2021	14	1	7	2	2
2022	13	1	7	1.75	1.75
2023	12	1	6	1.75	1.75
2024	11	1	5	1.5	1.25
2025	10	1	4	1	1
2026	8	1	3	1	1
2027	6	1	2	0.5	0.5
2028	4	1	1	0.5	0.5
2029	2	1	0.5	0.25	0.25
2030	1	1	0.25	0.25	0.25

1           (b) GENERAL DISTRIBUTION.—Not later than 1 year  
2 after the date of enactment of this Act, the Administrator  
3 shall establish a system for distributing to entities identi-  
4 fied under subsection (a) the emission allowances allocated  
5 under that subsection.

1           (c) FACILITIES THAT SHUT DOWN.—The system es-  
2   tablished pursuant to subsection (b) shall ensure, notwith-  
3   standing any other provision of this subtitle, that—

4           (1) emission allowances are not distributed to  
5   an owner or operator for any facility that has been  
6   permanently shut down at the time of the distribu-  
7   tion;

8           (2) the owner or operator of any facility that  
9   permanently shuts down in a calendar year shall  
10   promptly return to the Administrator any emission  
11   allowances that the Administrator has distributed  
12   for that facility for any subsequent calendar years;  
13   and

14          (3) that, if a facility receives a distribution of  
15   emission allowances under this subtitle for a cal-  
16   endar year and subsequently permanently shuts  
17   down during that calendar year, the owner or oper-  
18   ator of the facility shall promptly return to the Ad-  
19   ministrator a number of emission allowances equal  
20   to the number that the Administrator determines is  
21   the portion that the owner or operator will no longer  
22   need to submit for that facility under section  
23   1202(a).

1 **SEC. 3902. DISTRIBUTING EMISSION ALLOWANCES TO OWN-**  
2 **ERS AND OPERATORS OF FOSSIL FUEL-FIRED**  
3 **ELECTRIC POWER GENERATING FACILITIES.**

4 (a) NEW ENTRANTS.—

5 (1) IN GENERAL.—As part of the system estab-  
6 lished under section 3901(b), the Administrator  
7 shall, for each calendar year, set aside, from the  
8 quantity of emission allowances represented by the  
9 percentages described in the table contained in sec-  
10 tion 3901(a) for owners and operators of fossil fuel-  
11 fired electric power generating facilities, a quantity  
12 of emission allowances for distribution to owners and  
13 operators of new entrant fossil fuel-fired electric  
14 power generating facilities (including such new en-  
15 trant facilities owned or operated by rural electric  
16 cooperatives in any State that is not a participant  
17 in the pilot program established under section  
18 3903(a)).

19 (2) CALCULATION OF ALLOWANCES.—The  
20 quantity of emission allowances distributed by the  
21 Administrator for a calendar year to a new entrant  
22 fossil fuel-fired electric power generating facility  
23 under paragraph (1) shall be equal to the product  
24 obtained by multiplying—

25 (A) the average greenhouse gas emission  
26 rate of all fossil fuel-fired electric power gener-

1           ating facilities that commenced operations dur-  
2           ing the 5 years preceding the date of enactment  
3           of this Act; and

4                   (B) the electricity generated by the facility  
5           during the calendar year, adjusted downward  
6           on a pro rata basis for each new facility in the  
7           event that insufficient allowances are available  
8           under section 3901(a) for a calendar year.

9           (b) INCUMBENTS.—

10                   (1) IN GENERAL.—As part of the system estab-  
11           lished under section 3901(b), the Administrator  
12           shall, for each calendar year, distribute to fossil fuel-  
13           fired electric power generating facilities (including  
14           such facilities owned or operated by rural electric co-  
15           operatives in any State that is not a participant in  
16           the pilot program established under section 3903(a))  
17           that were operating during the calendar year pre-  
18           ceding the year in which this Act was enacted the  
19           emission allowances represented by the percentages  
20           described in the table contained in section 3901(a)  
21           for owners and operators of fossil fuel-fired electric  
22           power generating facilities that remain after the dis-  
23           tribution of emission allowances under subsection  
24           (a).



1           (2) CALCULATION OF ALLOWANCES.—The  
2           quantity of emission allowances distributed to a fos-  
3           sil fuel-fired electric power generating facility under  
4           paragraph (1) shall be equal to the product obtained  
5           by multiplying—

6                   (A) the quantity of emission allowances  
7                   available for distribution under paragraph (1);  
8                   and

9                   (B) the quotient obtained by dividing—

10                           (i) the annual average quantity of car-  
11                           bon dioxide equivalents emitted by the fa-  
12                           cility during the 3 calendar years pre-  
13                           ceding the date of enactment of this Act;  
14                           by

15                           (ii) the annual average of the aggre-  
16                           gate quantity of carbon dioxide equivalents  
17                           emitted by all fossil fuel-fired electric  
18                           power generating facilities during those 3  
19                           calendar years.

20 **SEC. 3903. DISTRIBUTING ADDITIONAL EMISSION ALLOW-**  
21 **ANCES TO RURAL ELECTRIC COOPERATIVES.**

22           (a) ESTABLISHMENT OF PILOT PROGRAM.—

23                   (1) IN GENERAL.—As part of the system estab-  
24                   lished under section 3901(b), the Administrator  
25                   shall establish a pilot program for distributing to

1 rural electric cooperatives in the States described in  
2 paragraph (2), for each of calendar years 2012  
3 through 2029, 15 percent of the total number of  
4 emission allowances allocated for the calendar year  
5 to rural electric cooperatives under section 3901(a).

6 (2) DESCRIPTION OF STATES.—The States re-  
7 ferred to in subsection (a) are—

8 (A) 1 State east of the Mississippi River in  
9 which 13 rural electric cooperatives sold to con-  
10 sumers in that State electricity in a quantity of  
11 9,000,000 to 10,000,000 MWh, according to  
12 Energy Information Administration data for  
13 calendar year 2005; and

14 (B) 1 State west of the Mississippi River  
15 in which 30 rural electric cooperatives sold to  
16 consumers in that State electricity in a quantity  
17 of 3,000,000 to 4,000,000 MWh, according to  
18 Energy Information Administration data for  
19 calendar year 2005.

20 (b) DISTRIBUTION TO OTHER STATES.—As part of  
21 the system established under section 3901(b), the Admin-  
22 istrator shall establish a system for distributing to rural  
23 electric cooperatives in all States other than the 2 States  
24 described in subsection (a)(2), for each of calendar years  
25 2012 through 2029, 85 percent of the total number of

1 emission allowances allocated for the calendar year to  
2 rural electric cooperatives under section 3901(a), in pro-  
3 portion to the sales of each rural electric cooperative, as  
4 reported by the Energy Information Administration.

5 (c) LIMITATION.—No rural electric cooperative that  
6 receives emission allowances under subsection (a) shall re-  
7 ceive any emission allowance under subsection (b), section  
8 3902, or section 3402.

9 (d) REPORT.—Not later than January 1, 2015, and  
10 every 3 years thereafter, the Administrator shall submit  
11 to Congress a report describing the success of the pilot  
12 program established under subsection (a), including a de-  
13 scription of—

14 (1) the benefits realized by ratepayers of the  
15 rural electric cooperatives that receive allowances  
16 under the pilot program; and

17 (2) the use by those rural electric cooperatives  
18 of advanced, low greenhouse gas-emitting electric  
19 generation technologies, if any.

20 **SEC. 3904. DISTRIBUTING EMISSION ALLOWANCES TO OWN-**  
21 **ERS AND OPERATORS OF ENERGY INTENSIVE**  
22 **MANUFACTURING FACILITIES.**

23 (a) DEFINITIONS.—In this section:

24 (1) CURRENTLY OPERATING FACILITY.—The  
25 term “currently operating facility” means an eligible

1 manufacturing facility that had significant oper-  
2 ations during the calendar year preceding the cal-  
3 endar year for which emission allowances are being  
4 distributed under this section.

5 (2) ELIGIBLE MANUFACTURING FACILITY.—

6 (A) IN GENERAL.—The term “eligible  
7 manufacturing facility” means a manufacturing  
8 facility located in the United States that prin-  
9 cipally manufactures iron, steel, aluminum,  
10 pulp, paper, cement, chemicals, or such other  
11 products as the Administrator may determine,  
12 by rule, are likely to be significantly disadvan-  
13 taged in competitive international markets as a  
14 result of indirect costs of the program estab-  
15 lished under this Act.

16 (B) EXCLUSION.—The term “eligible man-  
17 ufacturing facility” does not include a facility  
18 eligible to receive emission allowances under  
19 section 3902, 3903, or 3905.

20 (3) INDIRECT CARBON DIOXIDE EMISSIONS.—

21 The term “indirect carbon dioxide emissions” means  
22 the product obtained by multiplying (as determined  
23 by the Administrator)—

24 (A) the quantity of electricity consumption  
25 at an eligible manufacturing facility; and

1 (B) the rate of carbon dioxide emission per  
2 kilowatt-hour output for the region in which the  
3 manufacturer is located.

4 (4) NEW ENTRANT MANUFACTURING FACIL-  
5 ITY.—The term “new entrant manufacturing facil-  
6 ity”, with respect to a calendar year, means an eligi-  
7 ble manufacturing facility that began operation dur-  
8 ing or after the calendar year for which emission al-  
9 lowances are being distributed under this section.

10 (b) TOTAL ALLOCATION FOR CURRENTLY OPER-  
11 ATING FACILITIES.—As part of the system established  
12 under section 3901(b), the Administrator shall, for each  
13 calendar year, distribute 96 percent of the total quantity  
14 of emission allowances available for allocation to carbon-  
15 intensive manufacturing under section 3901(a) to cur-  
16 rently operating facilities.

17 (c) TOTAL ALLOCATION FOR CURRENTLY OPER-  
18 ATING FACILITIES IN EACH CATEGORY OF MANUFAC-  
19 TURING FACILITIES.—The quantity of emission allow-  
20 ances distributed by the Administrator for a calendar year  
21 to facilities in each category of currently operating facili-  
22 ties shall be equal to the product obtained by multi-  
23 plying—

24 (1) the total quantity of emission allowances  
25 available for allocation under subsection (b); and

1           (2) the ratio that (during the calendar year pre-  
2           ceding the calendar year for which emission allow-  
3           ances are being distributed under this section)—

4                   (A) the sum of the direct and indirect car-  
5           bon dioxide emissions by currently operating fa-  
6           cilities in the category; bears to

7                   (B) the sum of the direct and indirect car-  
8           bon dioxide emissions by all currently operating  
9           facilities.

10       (d) INDIVIDUAL ALLOCATIONS TO CURRENTLY OP-  
11       ERATING FACILITIES.—The quantity of emission allow-  
12       ances distributed by the Administrator for a calendar year  
13       to a currently operating facility shall be a quantity equal  
14       to the product obtained by multiplying—

15                   (1) the total quantity of emission allowances  
16       available for allocation to currently-operating facili-  
17       ties in the appropriate category, as determined  
18       under subsection (c); and

19                   (2) the ratio that (during the 3 calendar years  
20       preceding the year for which the allocation rule is  
21       promulgated for the allocation period)—

22                   (A) the average number of production em-  
23       ployees employed at the facility; bears to

1 (B) the average number of production em-  
2 ployees employed at all existing eligible manu-  
3 facturing facilities in the appropriate category.

4 (e) NEW ENTRANT MANUFACTURING FACILITIES.—

5 (1) IN GENERAL.—As part of the system estab-  
6 lished under section 3901(b), the Administrator  
7 shall, for each calendar year, distribute 4 percent of  
8 the total quantity of emission allowances available  
9 for allocation to carbon intensive manufacturing  
10 under section 3901(a) to new entrant manufacturing  
11 facilities.

12 (2) INDIVIDUAL ALLOCATIONS.—The quantity  
13 of emission allowances distributed by the Adminis-  
14 trator for a calendar year to a new entrant manufac-  
15 turing facility shall be proportional to the product  
16 obtained by multiplying—

17 (A) the average number of production em-  
18 ployees employed at the new entrant manufac-  
19 turing facility during the prior calendar year;  
20 and

21 (B) the rate (in emission allowances per  
22 production employee) at which emission allow-  
23 ances were allocated to currently operating fa-  
24 cilities in the appropriate category for the cal-  
25 endar year, as determined under subsection (d).

1 **SEC. 3905. DISTRIBUTING EMISSION ALLOWANCES TO OWN-**  
2 **ERS AND OPERATORS OF FACILITIES AND**  
3 **OTHER ENTITIES THAT PRODUCE OR IMPORT**  
4 **PETROLEUM-BASED FUEL.**

5 (a) IN GENERAL.—As part of the system established  
6 under section 3901(b), the Administrator shall, for each  
7 calendar year, distribute to facilities or entities that  
8 produce or import petroleum-based fuel the emission al-  
9 lowances represented by the percentages described in the  
10 table contained in section 3901(a) for owners and opera-  
11 tors of facilities or entities that produce or import petro-  
12 leum-based fuel.

13 (b) CALCULATION OF ALLOWANCES.—The quantity  
14 of emission allowances distributed to a facility or entity  
15 under subsection (a) shall be equal to the product obtained  
16 by multiplying—

17 (1) the quantity of emission allowances avail-  
18 able for distribution under subsection (a); and

19 (2) the quotient obtained by dividing—

20 (A) the annual average of the aggregate  
21 quantity of the petroleum-based products pro-  
22 duced or imported by that facility or entity dur-  
23 ing the 3 calendar years preceding the distribu-  
24 tion of allowances; by

25 (B) the annual average of the aggregate  
26 quantity of petroleum-based products produced



1 or imported by covered facilities and entities  
2 that produced or imported petroleum-based fuel  
3 during those preceding 3 calendar years.

4 **SEC. 3906. DISTRIBUTING EMISSION ALLOWANCES TO**  
5 **HYDROFLUOROCARBON PRODUCERS AND IM-**  
6 **PORTERS.**

7 (a) IN GENERAL.—The emission allowances allocated  
8 to hydrofluorocarbon producers and hydrofluorocarbon im-  
9 porters under section 3901(a) shall be distributed to the  
10 individual hydrofluorocarbon producers and  
11 hydrofluorocarbon importers in accordance with section  
12 10005.

13 (b) EFFECT.—The distributions under subsection (a)  
14 shall not, in any way, limit or otherwise alter the prohibi-  
15 tions set forth in subsection 10007(b).

16 **Subtitle J—Reducing Methane**  
17 **Emissions From Landfills and**  
18 **Coal Mines**

19 **SEC. 3907. ALLOCATION.**

20 Not later than April 1, 2011, and annually thereafter  
21 through 2049, the Administrator shall allocate 1 percent  
22 of the quantity of remainder emission allowances for the  
23 following calendar year to a program for achieving real,  
24 verifiable, additional, permanent, and enforceable reduc-

1 tions in emissions of methane from landfills and coal  
2 mines.

3 **SEC. 3908. DISTRIBUTION.**

4 (a) IN GENERAL.—Not later than 1 year after the  
5 date of enactment of this Act, the Administrator shall es-  
6 tablish a program that includes a system for distributing  
7 to individual entities the emission allowances allocated  
8 under section 3907.

9 (b) REQUIREMENT.—The Administrator shall dis-  
10 tribute emission allowances under subsection (a) in a man-  
11 ner that maximizes the avoidance or reduction of green-  
12 house gas emissions.

13 **TITLE IV—AUCTIONS AND USES**  
14 **OF AUCTION PROCEEDS**  
15 **Subtitle A—Funds**

16 **SEC. 4101. ESTABLISHMENT.**

17 There are established in the Treasury of the United  
18 States the following funds:

19 (1) The Energy Assistance Fund.

20 (2) The Climate Change Worker Training  
21 Fund.

22 (3) The Adaptation Fund.

23 (4) The Climate Change and National Security  
24 Fund.

1           (5) The Bureau of Land Management Emer-  
2           gency Firefighting Fund.

3           (6) The Forest Service Emergency Firefighting  
4           Fund.

5           (7) The Climate Security Act Management  
6           Fund.

7 **SEC. 4102. AMOUNTS IN FUNDS.**

8           Each Fund established by section 4101 shall consist  
9           of such amounts as are deposited into the respective Fund  
10          under subtitle C.

11 **Subtitle B—Climate Change Credit**  
12 **Corporation**

13 **SEC. 4201. ESTABLISHMENT.**

14          (a) IN GENERAL.—There is established, as a non-  
15          profit corporation without stock, a corporation to be  
16          known as the “Climate Change Credit Corporation”.

17          (b) TREATMENT.—The Corporation shall not be con-  
18          sidered to be an agency or establishment of the Federal  
19          Government.

20 **SEC. 4202. APPLICABLE LAWS.**

21          The Corporation shall be subject to this title and, to  
22          the extent consistent with this title, the District of Colum-  
23          bia Business Corporation Act (D.C. Code section 29–301  
24          et seq.).

1 **SEC. 4203. BOARD OF DIRECTORS.**

2 (a) IN GENERAL.—The Corporation shall have a  
3 board of directors composed of 5 individuals who are citi-  
4 zens of the United States, of whom 1 shall be elected an-  
5 nually by the board to serve as Chairperson.

6 (b) POLITICAL AFFILIATION.—Not more than 3  
7 members of the board serving at any time may be affili-  
8 ated with the same political party.

9 (c) APPOINTMENT AND TERM.—A member of the  
10 board shall be appointed by the President, by and with  
11 the advice and consent of the Senate, for a term of 5  
12 years.

13 (d) QUORUM.—Three members of the board shall  
14 constitute a quorum for a meeting of the board of direc-  
15 tors.

16 (e) PROHIBITIONS.—

17 (1) CONFLICTS OF INTEREST.—An individual  
18 employed by, or holding any official relationship (in-  
19 cluding any shareholder) with, any entity engaged in  
20 the generation, transmission, distribution, or sale of  
21 energy, an individual who has any pecuniary interest  
22 in the generation, transmission, distribution, or sale  
23 of energy, or an individual who has a pecuniary in-  
24 terest in the implementation of this Act, shall not be  
25 appointed to the Corporation under this subtitle.

1           (2) NO OTHER EMPLOYMENT.—A member of  
2 the Corporation shall not hold any other employment  
3 during the term of service of the member.

4 (f) VACANCIES.—

5           (1) IN GENERAL.—A vacancy on the Corpora-  
6 tion—

7           (A) shall not affect the powers of the Cor-  
8 poration; and

9           (B) shall be filled in the same manner as  
10 the original appointment was made.

11          (2) SERVICE UNTIL NEW APPOINTMENT.—A  
12 member of the Corporation the term of whom has  
13 expired or otherwise been terminated shall continue  
14 to serve until the date on which a replacement is ap-  
15 pointed if the President determines that service to  
16 be appropriate.

17 (g) REMOVAL.—

18          (1) IN GENERAL.—A member may be removed  
19 from the Corporation on determination of the Presi-  
20 dent for cause.

21          (2) NOTIFICATION.—Not later than 30 days be-  
22 fore removing a member from the Corporation for  
23 cause under paragraph (1), the President shall pro-  
24 vide to Congress an advance notification of the de-  
25 termination by the President to remove the member.

1 **SEC. 4204. REVIEW AND AUDIT BY COMPTROLLER GEN-**  
2 **ERAL.**

3 Not later than January 1, 2013, and annually there-  
4 after, the Comptroller General of the United States shall  
5 conduct a review and audit of each expenditure made pur-  
6 suant to this title to determine the efficacy of the pro-  
7 grams, expenditures, and projects funded under this title.

8 **Subtitle C—Auctions**

9 **SEC. 4301. EARLY AUCTIONS.**

10 (a) INITIATION OF AUCTIONING.—Not later than 1  
11 year after the date of enactment of this Act, the Corpora-  
12 tion shall begin auctioning the emission allowances allo-  
13 cated to the Corporation under section 3102.

14 (b) COMPLETION OF AUCTIONING.—Not later than  
15 December 31, 2010, the Corporation shall complete auc-  
16 tioning of all allowances allocated to the Corporation  
17 under section 3102.

18 (c) PROCEEDS FROM EARLY AUCTIONING.—The  
19 Corporation shall use to carry out programs established  
20 under subtitle D all proceeds of early auctioning conducted  
21 by the Corporation under this section.

22 **SEC. 4302. ANNUAL AUCTIONS.**

23 (a) IN GENERAL.—Not later than 330 days before  
24 the beginning of a calendar year identified in the table  
25 contained in section 3103, the Corporation shall auction

1 all of the allowances allocated to the Corporation for that  
2 year by the Administrator under section 3103.

3 (b) PROCEEDS FROM ANNUAL AUCTIONING.—

4 (1) BUREAU OF LAND MANAGEMENT EMER-  
5 GENCY FIREFIGHTING FUND.—For each of calendar  
6 years 2012 through 2050, the Corporation shall de-  
7 posit into the Bureau of Land Management Emer-  
8 gency Firefighting Fund established by section  
9 4101(5) proceeds, from annual auctions that the  
10 Corporation conducts for the calendar year under  
11 this section, that are sufficient to ensure that the  
12 amount in the Fund equals \$300,000,000.

13 (2) FOREST SERVICE EMERGENCY FIRE-  
14 FIGHTING FUND.—For each of calendar years 2012  
15 through 2050, the Corporation shall deposit into the  
16 Forest Service Emergency Firefighting Fund estab-  
17 lished by section 4101(6) proceeds, from annual auc-  
18 tions that the Corporation conducts for the calendar  
19 year under this section, that are sufficient to ensure  
20 that the amount in the Fund equals \$800,000,000.

21 (3) CLIMATE SECURITY ACT MANAGEMENT  
22 FUND.—

23 (A) IN GENERAL.—For each of calendar  
24 years 2012 through 2050, the Corporation shall  
25 deposit into the Climate Security Act Manage-

1           ment Fund established by section 4101(7) such  
2           percentage of the proceeds of the annual auc-  
3           tions conducted by the Corporation for the cal-  
4           endar year under this section as the Adminis-  
5           trator determines to be sufficient to efficiently  
6           and effectively administer this Act.

7           (B) DISTRIBUTION.—The Administrator  
8           may distribute funds from the Climate Security  
9           Act Management Fund to the Secretary of Ag-  
10          riculture, the Secretary of Labor, and the Car-  
11          bon Market Efficiency Board, as the Adminis-  
12          trator determines to be necessary to assist in  
13          carrying out this Act.

14          (C) USE OF FUNDS.—The head of a Fed-  
15          eral agency or department may use funds from  
16          the Climate Security Act Management Fund for  
17          the costs to the agency or department of car-  
18          rying out this Act, including the costs of—

- 19                   (i) promulgation of regulations;  
20                   (ii) development of policy guidance;  
21                   (iii) development and operation of in-  
22                   formation systems;  
23                   (iv) certification of monitoring equip-  
24                   ment;



- 1 (v) conducting facilities audits and in-  
2 spections;  
3 (vi) monitoring and modeling;  
4 (vii) quality assurance and verification  
5 functions;  
6 (viii) enforcement;  
7 (ix) administration;  
8 (x) outreach;  
9 (xi) training;  
10 (xii) field audits; and  
11 (xiii) financial management.

12 (D) TREATMENT.—Amounts in the Cli-  
13 mate Security Act Management Fund—

- 14 (i) shall be used only to advance the  
15 purposes described in section 3;  
16 (ii) are subject to the availability of  
17 appropriations; and  
18 (iii) shall remain available until ex-  
19 pended.

20 (4) USE OF REMAINING PROCEEDS.—

21 (A) IN GENERAL.—For each of calendar  
22 years 2012 through 2050, the Corporation shall  
23 use the proceeds of the annual auctions con-  
24 ducted by the Corporation for the calendar year

1 under this section in accordance with this para-  
2 graph.

3 (B) ENERGY TECHNOLOGY DEPLOY-  
4 MENT.—For each of calendar years 2012  
5 through 2050, the Corporation shall use to  
6 carry out the programs established under sub-  
7 title D 52 percent of the proceeds of the annual  
8 auctions conducted by the Corporation for the  
9 calendar year under this section.

10 (C) ENERGY INDEPENDENCE ACCELERA-  
11 TION FUND.—In any of calendar years 2012  
12 through 2050 during which there exists in the  
13 Treasury of the United States an energy trans-  
14 formation acceleration fund administered by the  
15 Director of the Advanced Research Projects  
16 Agency within the Department of Energy, of  
17 the proceeds of the annual auctions conducted  
18 by the Corporation for the calendar year under  
19 this section, the Corporation shall deposit 2  
20 percent of the proceeds into that fund.

21 (D) ENERGY CONSUMERS.—For each of  
22 calendar years 2012 through 2050, the Cor-  
23 poration shall deposit into the Energy Assist-  
24 ance Fund established by section 4101(1) 18  
25 percent of the proceeds of the annual auctions

1 conducted by the Corporation for the calendar  
2 year under this section.

3 (E) CLIMATE CHANGE WORKER TRAINING  
4 PROGRAM.—For each of calendar years 2012  
5 through 2050, the Corporation shall deposit  
6 into the Climate Change Worker Training Fund  
7 established by section 4101(2) 5 percent of the  
8 proceeds of the annual auctions conducted by  
9 the Corporation for the calendar year under  
10 this section.

11 (F) ADAPTATION PROGRAM FOR NATURAL  
12 RESOURCES IN UNITED STATES AND TERRI-  
13 TORIES.—For each of calendar years 2012  
14 through 2050, the Corporation shall deposit  
15 into the Adaptation Fund established by section  
16 4101(3) 18 percent of the proceeds of the an-  
17 nual auctions conducted by the Corporation for  
18 the calendar year under this section.

19 (G) CLIMATE CHANGE AND NATIONAL SE-  
20 CURITY PROGRAM.—For each of calendar years  
21 2012 through 2050, the Corporation shall de-  
22 posit into the Climate Change and National Se-  
23 curity Fund established by section 4101(4) 5  
24 percent of the proceeds of the annual auctions

1           conducted by the Corporation for the calendar  
2           year under this section.

3           **Subtitle D—Energy Technology**  
4           **Deployment**

5   **SEC. 4401. GENERAL ALLOCATIONS.**

6           For each calendar year, the Corporation shall use the  
7   amounts described in sections 4301(c) and 4302(b)(4)(B)  
8   to carry out the programs established under this subtitle,  
9   as follows:

10           (1) 32 percent of the funds shall be used to  
11           carry out the zero- or low-carbon energy technologies  
12           program under section 4402.

13           (2) 25 percent shall be used to carry out the  
14           advanced coal and sequestration technologies pro-  
15           gram under section 4403.

16           (3) 6 percent shall be used to carry out the fuel  
17           from cellulosic biomass program under section 4404.

18           (4) 12 percent shall be used to carry out the  
19           advanced technology vehicles manufacturing incen-  
20           tive program under section 4405.

21           (5) 25 percent shall be used to carry out the  
22           sustainable energy program under section 4406.

23   **SEC. 4402. ZERO- OR LOW-CARBON ENERGY TECHNOLOGIES**  
24           **DEPLOYMENT.**

25           (a) DEFINITIONS.—In this section:

1           (1) ENERGY SAVINGS.—The term “energy sav-  
2           ings” means megawatt-hours of electricity or million  
3           British thermal units of natural gas saved by a  
4           product, in comparison to projected energy consump-  
5           tion under an energy-efficiency standard applicable  
6           to the product.

7           (2) ENGINEERING INTEGRATION COSTS.—The  
8           term “engineering integration costs” includes the  
9           costs of engineering tasks relating to—

10                   (A) redesigning manufacturing processes  
11                   to begin producing qualifying components and  
12                   zero- or low-carbon generation technologies;

13                   (B) designing new tooling and equipment  
14                   for production facilities that produce qualifying  
15                   components and zero- or low-carbon generation  
16                   technologies; and

17                   (C) establishing or expanding manufac-  
18                   turing operations for qualifying components and  
19                   zero- or low-carbon generation technologies.

20           (3) HIGH-EFFICIENCY CONSUMER PRODUCT.—  
21           The term “high-efficiency consumer product” means  
22           a covered product to which an energy conservation  
23           standard applies under section 325 of the Energy  
24           Policy and Conservation Act (42 U.S.C. 6295), if

1 the energy efficiency of the product exceeds the en-  
2 ergy efficiency required under the standard.

3 (4) QUALIFYING COMPONENT.—The term  
4 “qualifying component” means a component that the  
5 Secretary of Energy determines to be specially de-  
6 signed for zero- or low-carbon generation technology.

7 (5) ZERO- OR LOW-CARBON GENERATION.—The  
8 term “zero- or low-carbon generation” means gen-  
9 eration of electricity by an electric generation unit  
10 that—

11 (A) emits no carbon dioxide into the at-  
12 mosphere, or is fossil-fuel fired and emits into  
13 the atmosphere not more than 250 pounds of  
14 carbon dioxide per megawatt-hour (after adjust-  
15 ment for any carbon dioxide from the unit that  
16 is geologically sequestered); and

17 (B) was placed into commercial service  
18 after the date of enactment of this Act.

19 (6) ZERO- OR LOW-CARBON GENERATION TECH-  
20 NOLOGY.—The term “zero- or low-carbon generation  
21 technology” means a technology used to create zero-  
22 or low-carbon generation.

23 (b) FINANCIAL INCENTIVES PROGRAM.—During each  
24 fiscal year beginning on or after October 1, 2008, the Cor-

1 poration shall competitively award financial incentives  
2 under this subsection in the technology categories of—

3 (1) the production of electricity from new zero-  
4 or low-carbon generation;

5 (2) the manufacture of high-efficiency consumer  
6 products; and

7 (3) facility establishment or conversion by man-  
8 ufacturers and component suppliers of zero- or low-  
9 carbon technology.

10 (c) REQUIREMENTS.—

11 (1) IN GENERAL.—The Corporation shall make  
12 awards under this section to domestic producers of  
13 new zero- or low-carbon generation, domestic manu-  
14 facturers of high-efficiency consumer products, and  
15 domestic facilities and operations of manufacturers  
16 and component suppliers of zero- or low-carbon gen-  
17 eration technology—

18 (A) in the case of producers of new zero-  
19 or low-carbon generation, based on the bid of  
20 each producer in terms of dollars per megawatt-  
21 hour of electricity generated;

22 (B) in the case of manufacturers of quali-  
23 fying high-efficiency consumer products, based  
24 on the bid of each manufacturer in terms of

1 dollars per megawatt-hour or million British  
2 thermal units saved; and

3 (C) in the case of qualifying manufacturers  
4 of zero- or low-carbon generation technology,  
5 based on the criteria noted in subsection (e).

6 (2) ACCEPTANCE OF BIDS.—

7 (A) IN GENERAL.—In making awards  
8 under subparagraphs (A) and (B) of paragraph  
9 (1), the Corporation shall—

10 (i) solicit bids for reverse auction from  
11 appropriate producers and manufacturers,  
12 as determined by the Corporation; and

13 (ii) award financial incentives to the  
14 producers and manufacturers that submit  
15 the lowest bids that meet the requirements  
16 established by the Corporation.

17 (B) FACTORS FOR CONVERSION.—

18 (i) IN GENERAL.—For the purpose of  
19 assessing bids under subparagraph (A), the  
20 Corporation shall specify a factor for con-  
21 verting megawatt-hours of electricity and  
22 million British thermal units of natural  
23 gas to common units.

24 (ii) REQUIREMENT.—The conversion  
25 factor shall be based on the relative green-



1           house gas emission benefits of electricity  
2           and natural gas conservation.

3       (d) FORMS OF AWARDS.—

4           (1) ZERO- AND LOW-CARBON GENERATORS.—

5       An award for zero- or low-carbon generation under  
6       this subsection shall be in the form of a contract to  
7       provide a production payment for each year during  
8       the first 10 years of commercial service of the gen-  
9       eration unit in an amount equal to the product ob-  
10      tained by multiplying—

11           (A) the amount bid by the producer of the  
12           zero- or low-carbon generation; and

13           (B) the megawatt-hours estimated to be  
14           generated by the zero- or low-carbon generation  
15           unit each year.

16           (2) HIGH-EFFICIENCY CONSUMER PRODUCTS.—

17      An award for a high-efficiency consumer product  
18      under this subsection shall be in the form of a lump  
19      sum payment in an amount equal to the product ob-  
20      tained by multiplying—

21           (A) the amount bid by the manufacturer of  
22           the high-efficiency consumer product; and

23           (B) the energy savings during the pro-  
24           jected useful life of the high-efficiency consumer

1 product, not to exceed 10 years, as determined  
2 by the Corporation.

3 (3) MANUFACTURING OF ZERO- OR LOW-CAR-  
4 BON GENERATION TECHNOLOGY.—

5 (A) IN GENERAL.—An award for facility  
6 establishment or conversion costs for zero- or  
7 low-carbon generation technology shall be in an  
8 amount equal to not more than 30 percent of  
9 the cost of—

10 (i) establishing, reequipping, or ex-  
11 panding a manufacturing facility to  
12 produce—

13 (I) qualifying zero- or low-carbon  
14 generation technology; or

15 (II) qualifying components;

16 (ii) engineering integration costs of  
17 zero- or low-carbon generation technology  
18 and qualifying components; and

19 (iii) property, machine tools, and  
20 other equipment acquired or constructed  
21 primarily to enable the recipient to test  
22 equipment necessary for the construction  
23 or operation of a zero- or low-carbon gen-  
24 eration facility.

1 (B) MINIMUM AMOUNT.—The Corporation  
2 shall use not less than  $\frac{1}{4}$  of the amounts made  
3 available to carry out this section to make  
4 awards to entities for the manufacturing of  
5 zero- or low-carbon generation technology.

6 (e) SELECTION CRITERIA.—In making awards under  
7 this section to qualifying manufacturers of zero- or low-  
8 carbon generation technology and qualifying components,  
9 the Corporation shall select manufacturers that—

10 (1) document the greatest use of domestically  
11 sourced parts and components;

12 (2) return to productive service existing idle  
13 manufacturing capacity;

14 (3) are located in States with the greatest avail-  
15 ability of unemployed manufacturing workers;

16 (4) compensate workers at a minimum amount  
17 equal to at least 100 percent of the State average  
18 manufacturing wage, plus health insurance benefits;

19 (5) demonstrate a high probability of commer-  
20 cial success; and

21 (6) achieve other criteria, as the Corporation  
22 determines to be appropriate.

23 **SEC. 4403. ADVANCED COAL AND SEQUESTRATION TECH-**  
24 **NOLOGIES PROGRAM.**

25 (a) ADVANCED COAL TECHNOLOGIES.—

1 (1) DEFINITIONS.—In this section:

2 (A) ADVANCED COAL GENERATION TECH-  
3 NOLOGY.—Except as provided in paragraph (2),  
4 the term “advanced coal generation technology”  
5 means an advanced coal-fueled power plant  
6 technology that meets 1 of the following per-  
7 formance standards for limiting carbon dioxide  
8 emissions from an electric generation unit on  
9 an annual average basis, as determined by the  
10 Corporation:

11 (i) For an electric generation unit  
12 that is not a new entrant, an annual emis-  
13 sions rate of not more than 1,200 pounds  
14 of carbon dioxide per megawatt-hour of net  
15 electricity generation, after subtracting the  
16 carbon dioxide that is captured and se-  
17 questered.

18 (ii) For any project for which con-  
19 struction of the unit commenced before  
20 July 1, 2018, an annual emissions rate of  
21 not more than 800 pounds of carbon diox-  
22 ide per megawatt-hour of net electricity  
23 generation, after subtracting the carbon di-  
24 oxide that is captured and sequestered.

1 (iii) For any project for which con-  
2 struction of the unit commenced on or  
3 after July 1, 2018, an annual emissions  
4 rate of not more than 350 pounds of car-  
5 bon dioxide per megawatt-hour of net elec-  
6 tricity generation, after subtracting the  
7 carbon dioxide that is captured and se-  
8 questered.

9 (B) COMMENCED.—The term “com-  
10 menced”, with respect to construction, means  
11 that an owner or operator has—

12 (i) obtained the necessary permits to  
13 carry out a continuous program of con-  
14 struction; and

15 (ii) entered into a binding contractual  
16 obligation, with substantial financial pen-  
17 alties for cancellation, to undertake such a  
18 program.

19 (C) CONSTRUCTION.—The term “construc-  
20 tion”, with respect to a carbon capture and se-  
21 questration project, means the fabrication, erec-  
22 tion, or installation of technology for the  
23 project.

24 (2) ADJUSTMENT OF PERFORMANCE STAND-  
25 ARDS.—

1 (A) IN GENERAL.—The Corporation may  
2 adjust the emissions performance standards for  
3 a carbon capture and sequestration project  
4 under paragraph (1)(A) for an electric genera-  
5 tion unit that uses subbituminous coal, lignite,  
6 or petroleum coke in significant amounts.

7 (B) REQUIREMENT.—If the Corporation  
8 adjusts a standard under subparagraph (A), the  
9 adjusted performance standard for the applica-  
10 ble project shall prescribe an annual emissions  
11 rate that requires the project to achieve an  
12 equivalent reduction from uncontrolled carbon  
13 dioxide emissions levels from the use of subbitu-  
14 minous coal, lignite, or petroleum coke, as com-  
15 pared to the emissions the project would have  
16 achieved if that unit had combusted only bitu-  
17 minous coal during the particular calendar year.

18 (3) DEMONSTRATION PROJECTS.—

19 (A) IN GENERAL.—The Corporation shall  
20 use not less than  $\frac{1}{4}$  of the amounts made avail-  
21 able to carry out this section for each fiscal  
22 year to support demonstration projects using  
23 advanced coal generation technology, including  
24 retrofit technology that could be deployed on  
25 existing coal generation facilities.

1 (B) CERTAIN PROJECTS.—Of the amounts  
2 described in subparagraph (A), the Corporation  
3 shall make available up to 25 percent for  
4 projects that meet the carbon dioxide emissions  
5 performance standard under clause (i) of para-  
6 graph (1)(A).

7 (4) DEPLOYMENT INCENTIVES.—

8 (A) IN GENERAL.—The Corporation shall  
9 use not less than  $\frac{1}{4}$  of the amounts made avail-  
10 able to carry out this section for each fiscal  
11 year to provide financial incentives to facilitate  
12 the deployment of not more than 20 gigawatts  
13 of advanced coal generation technologies.

14 (B) ADMINISTRATION.—In providing in-  
15 centives under this paragraph, the Corporation  
16 shall—

17 (i) provide appropriate incentives for  
18 regulated investor-owned utilities, munic-  
19 ipal utilities, electric cooperatives, and  
20 independent power producers, as deter-  
21 mined by the Secretary of Energy; and

22 (ii) ensure that a range of the domes-  
23 tic coal types is employed in the facilities  
24 that receive incentives under this para-  
25 graph.

1 (C) FUNDING REQUIREMENTS.—

2 (i) SEQUESTRATION ACTIVITIES.—The  
3 Corporation shall provide incentives only to  
4 projects that meet 1 of the emission per-  
5 formance standards for limiting carbon di-  
6 oxide under clause (ii) or (iii) of paragraph  
7 (1)(A).

8 (ii) PROJECTS USING CERTAIN  
9 COALS.—In providing incentives under this  
10 paragraph, the Corporation shall set aside  
11 not less than 25 percent of any amounts  
12 made available to carry out this subsection  
13 for projects using coal with an energy con-  
14 tent of not more than 10,000 British ther-  
15 mal units per pound.

16 (5) STORAGE AGREEMENT REQUIRED.—The  
17 Corporation shall require a binding storage agree-  
18 ment for the carbon dioxide captured in a project  
19 under this subsection in a geological storage project  
20 permitted by the Administrator under regulations  
21 promulgated pursuant to section 1421(d) of the Safe  
22 Drinking Water Act (42 U.S.C. 300h(d)).

23 (6) DISTRIBUTION OF FUNDS.—

24 (A) REQUIREMENT.—The Corporation  
25 shall make awards under this section in a man-



1           ner that maximizes the avoidance or reduction  
2           of greenhouse gas emissions.

3           (B) INCENTIVES.—A project that receives  
4           an award under this subsection may elect 1 of  
5           the following financial incentives:

6                   (i) A loan guarantee.

7                   (ii) A cost-sharing grant to cover the  
8                   incremental cost of installing and oper-  
9                   ating carbon capture and storage equip-  
10                  ment (for which utilization costs may be  
11                  covered for the first 10 years of operation).

12                  (iii) Production payments of not more  
13                  than 1.5 cents per kilowatt-hour of electric  
14                  output during the first 10 years of com-  
15                  mercial service of the project.

16           (7) LIMITATION.—A project may not receive an  
17           award under this subsection if the project receives  
18           an award under section 4402.

19           (b) SEQUESTRATION.—

20                   (1) IN GENERAL.—The Corporation shall use  
21                   not less than  $\frac{1}{2}$  of the amounts made available to  
22                   carry out this section for each fiscal year for large-  
23                   scale geological carbon storage demonstration  
24                   projects that store carbon dioxide captured from  
25                   electric generation units using coal gasification or

1 other advanced coal combustion processes, including  
2 units that receive assistance under subsection (a).

3 (2) PROJECT CAPITAL AND OPERATING  
4 COSTS.—

5 (A) IN GENERAL.—The Corporation shall  
6 provide assistance under this subsection to re-  
7 imburse the project owner for a percentage of  
8 the incremental project capital and operating  
9 costs of the project that are attributable to car-  
10 bon capture and sequestration, as the Secretary  
11 determines to be appropriate.

12 (B) CERTAIN PROJECTS.—Of the assist-  
13 ance provided under subparagraph (A), the  
14 Corporation shall make available up to 25 per-  
15 cent for projects that meet the carbon dioxide  
16 emissions performance standard under sub-  
17 section (a)(1)(A)(i).

18 **SEC. 4404. FUEL FROM CELLULOSIC BIOMASS.**

19 (a) IN GENERAL.—The Corporation shall provide de-  
20 ployment incentives under this section to encourage a vari-  
21 ety of projects to domestically produce transportation fuels  
22 from cellulosic biomass, relying on different feedstocks in  
23 different regions of the United States.

1 (b) PROJECT ELIGIBILITY.—Incentives under this  
2 section shall be provided on a competitive basis to projects  
3 that domestically produce fuels that—

4 (1) meet United States fuel and emission speci-  
5 fications;

6 (2) help diversify domestic transportation en-  
7 ergy supplies; and

8 (3) improve or maintain air, water, soil, and  
9 habitat quality, and protect scarce water supplies.

10 (c) INCENTIVES.—Incentives under this section may  
11 consist of—

12 (1) loan guarantees for the construction of pro-  
13 duction facilities and supporting infrastructure; or

14 (2) production payments through a reverse auc-  
15 tion in accordance with subsection (d).

16 (d) REVERSE AUCTION.—

17 (1) IN GENERAL.—In providing incentives  
18 under this section, the Corporation shall—

19 (A) prescribe rules under which producers  
20 of fuel from cellulosic biomass may bid for pro-  
21 duction payments under subsection (c)(2); and

22 (B) solicit bids from producers of different  
23 classes of transportation fuel, as the Corpora-  
24 tion determines to be appropriate.

1           (2) REQUIREMENT.—The rules under section  
2           4402 shall require that incentives shall be provided  
3           to the producers that submit the lowest bid (in  
4           terms of cents per gallon gasoline equivalent) for  
5           each class of transportation fuel from which the Cor-  
6           poration solicits a bid.

7   **SEC. 4405. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**  
8                           **TURING INCENTIVE PROGRAM.**

9           (a) DEFINITIONS.—In this section:

10           (1) ADVANCED TECHNOLOGY VEHICLE.—The  
11           term “advanced technology vehicle” means an elec-  
12           tric vehicle, a fuel cell-powered vehicle, a hybrid or  
13           plug-in hybrid electric vehicle, or an advanced diesel  
14           light duty motor vehicle, that meets—

15                   (A) the Tier II Bin 5 emission standard  
16                   established in rules prescribed by the Adminis-  
17                   trator under section 202(i) of the Clean Air Act  
18                   (42 U.S.C. 7521(i)), or a lower-numbered Bin  
19                   emission standard;

20                   (B) any new emission standard for fine  
21                   particulate matter prescribed by the Adminis-  
22                   trator under that Act; and

23                   (C) standard of at least 125 percent of the  
24                   average base year combined fuel economy, cal-  
25                   culated on an energy-equivalent basis for vehi-

1           cles other than advanced diesel light-duty motor  
2           vehicles, for vehicles of a substantially similar  
3           nature and footprint.

4           (2) COMBINED FUEL ECONOMY.—The term  
5           “combined fuel economy” means—

6                   (A) the combined city-highway miles per  
7                   gallon values, as reported in accordance with  
8                   section 32908 of title 49, United States Code;  
9                   and

10                   (B) in the case of an electric drive vehicle  
11                   with the ability to recharge from an off-board  
12                   source, the reported mileage, as determined in  
13                   a manner consistent with the Society of Auto-  
14                   motive Engineers recommended practice for  
15                   that configuration, or a similar practice rec-  
16                   ommended by the Secretary of Energy, using a  
17                   petroleum equivalence factor for the off-board  
18                   electricity (as defined by the Secretary of En-  
19                   ergy).

20           (3) ENGINEERING INTEGRATION COSTS.—The  
21           term “engineering integration costs” includes the  
22           cost of engineering tasks performed in the United  
23           States relating to—

1 (A) incorporating qualifying components  
2 into the design of advanced technology vehicles;  
3 and

4 (B) designing new tooling and equipment  
5 for production facilities that produce in the  
6 United States qualifying components or ad-  
7 vanced technology vehicles.

8 (4) QUALIFYING COMPONENT.—The term  
9 “qualifying component” means a component that the  
10 Secretary of Energy determines to be—

11 (A) specially designed for advanced tech-  
12 nology vehicles;

13 (B) installed for the purpose of meeting  
14 the performance requirements of advanced tech-  
15 nology vehicles as specified in subparagraphs  
16 (A), (B), and (C) of paragraph (1); and

17 (C) manufactured in the United States.

18 (b) MANUFACTURER FACILITY CONVERSION  
19 AWARDS.—The Corporation shall provide facility conver-  
20 sion funding awards under this subsection to automobile  
21 manufacturers and component suppliers to pay up to 30  
22 percent of the cost of—

23 (1) reequipping or expanding an existing manu-  
24 facturing facility to produce—

1 (A) qualifying advanced technology vehi-  
2 cles; or

3 (B) qualifying components; and

4 (2) engineering integration of qualifying vehi-  
5 cles and qualifying components.

6 (c) PERIOD OF AVAILABILITY.—An award under sub-  
7 section (b) shall apply to—

8 (1) facilities and equipment placed in service  
9 after the date of enactment of this Act and before  
10 January 1, 2030; and

11 (2) engineering integration costs incurred after  
12 the date of enactment of this Act.

13 (d) ADDITIONAL LIMITATIONS.—

14 (1) MAXIMUM AMOUNT.—The maximum  
15 amount of all awards under this section shall not ex-  
16 ceed \$40,000,000,000.

17 (2) CAFE REQUIREMENTS.—The Corporation  
18 shall not make an award under this section to an  
19 automobile manufacturer or component supplier  
20 that, directly or through a parent, subsidiary, or af-  
21 filiated entity, is not in compliance with each cor-  
22 porate average fuel economy standard under section  
23 32902 of title 49, United States Code, in effect on  
24 the date of the award.

25 (e) ADDITIONAL REQUIREMENTS.—

1           (1) DEFINITION OF RECIPIENT.—In this sub-  
2 section, the term “recipient” means the automobile  
3 manufacturer or component supplier (including any  
4 parent, subsidiary, and affiliated entities) that re-  
5 ceives an award under this section.

6           (2) CERTIFICATION.—To be eligible for an  
7 award under this section, an automobile manufac-  
8 turer or component supplier (including any parent,  
9 subsidiary, and affiliated entities) shall certify to the  
10 Corporation that, for each of the 7 calendar years  
11 following the receipt of the award, the manufacturer  
12 or supplier will maintain in the United States a  
13 number of full-time or full-time-equivalent employ-  
14 ees—

15           (A) equal to 90 percent of the monthly av-  
16 erage number of full-time or full-time-equivalent  
17 employees maintained by the manufacturer or  
18 supplier for the 12-month period ending on the  
19 date of receipt of the award;

20           (B) sufficient to ensure that the proportion  
21 that the workforce of the manufacturer or sup-  
22 plier in the United States bears to the global  
23 workforce of the manufacturer or supplier is  
24 equal to or greater than the average monthly  
25 proportion that the workforce of the manufac-



1 turer or supplier in the United States bears to  
2 the global workforce of the manufacturer or  
3 supplier for the 12-month period ending on the  
4 date of receipt of the award; or

5 (C) sufficient to ensure that any percent-  
6 age decrease in the hourly workforce of the  
7 manufacturer or supplier in the United States  
8 is not greater than the aggregate of the per-  
9 centage decrease in the market share of the  
10 manufacturer or supplier in the United States  
11 and the increase in the productivity of the man-  
12 ufacturer or supplier, calculated during the pe-  
13 riod beginning on the date of receipt of the  
14 award and ending on the date of certification  
15 under this subparagraph.

16 (3) RECERTIFICATION.—Not later than 1 year  
17 after the date of receipt of an award under this sec-  
18 tion, and annually thereafter, a manufacturer or  
19 supplier shall—

20 (A) recertify to the Corporation that, dur-  
21 ing the preceding calendar year, the manufac-  
22 turer or supplier has achieved compliance with  
23 the requirement described in paragraph (2);  
24 and

1 (B) provide to the Corporation sufficient  
2 data for verification of the recertification.

3 (4) REPAYMENT.—A manufacturer or supplier  
4 that fails to make the recertification required by  
5 paragraph (3) shall pay to the Corporation an  
6 amount equal to the difference between—

7 (A) the amount of the original award to  
8 the manufacturer or supplier; and

9 (B) the product obtained by multiplying—

10 (i) an amount equal to  $\frac{1}{7}$  of that  
11 original amount; and

12 (ii) the number of years during which  
13 the manufacturer or supplier—

14 (I) received an award under this  
15 section; and

16 (II) made the certification re-  
17 quired by paragraph (3).

18 **SEC. 4406. SUSTAINABLE ENERGY PROGRAM.**

19 (a) DEFINITION OF SUSTAINABLE ENERGY TECH-  
20 NOLOGY.—In this section, the term “sustainable energy  
21 technology” means a technology to harness a renewable  
22 energy source (as defined in section 609(a) of the Public  
23 Utility Regulatory Policies Act of 1978 (7 U.S.C.  
24 918c(a)), including in distributed energy systems.

1           (b) DEMONSTRATION PROJECTS.—The Corporation  
2 shall use not less than 25 percent of the amounts made  
3 available to carry out this section for each fiscal year to  
4 support demonstration projects in the United States using  
5 sustainable energy technology, including in distributed en-  
6 ergy systems.

7           (c) DEPLOYMENT INCENTIVES.—

8                 (1) IN GENERAL.—The Corporation shall use  
9 not less than 25 percent of the amounts made avail-  
10 able to carry out this section for each fiscal year to  
11 provide Federal financial incentives to facilitate the  
12 deployment in the United States of sustainable en-  
13 ergy technology, including in distributed energy sys-  
14 tems.

15                 (2) ADMINISTRATION.—In providing incentives  
16 under this subsection, the Corporation shall provide  
17 appropriate incentives for regulated investor-owned  
18 utilities, municipal utilities, electric cooperatives,  
19 independent power producers, and consumers, as de-  
20 termined by the Secretary of Energy.

21           (d) DISTRIBUTION OF FUNDS.—A project that re-  
22 ceives an award under this subsection may elect 1 of the  
23 following Federal financial incentives:

24                 (1) A loan guarantee.

1           (2) A cost-sharing grant to cover the incre-  
2           mental cost of installing and operating equipment  
3           (for which utilization costs may be covered for the  
4           first 10 years of operation).

5           (3) Production payments of not more than 1.5  
6           cents per kilowatt-hour of electric output during the  
7           first 10 years of commercial service of the project.

8           (e) LIMITATION.—A project may not receive an  
9           award under this subsection if the project receives an  
10          award under section 4402.

## 11           **Subtitle E—Energy Consumers**

### 12          **SEC. 4501. PROPORTIONS OF FUNDING AVAILABILITY.**

13          All funds deposited into the Energy Assistance Fund  
14          established by section 4101(1) shall be made available,  
15          without further appropriation or fiscal year limitation, to  
16          the following programs in the following proportions:

17                 (1) 50 percent of the funds to the low-income  
18                 home energy assistance program established under  
19                 the Low Income Home Energy Assistance Act of  
20                 1981 (42 U.S.C. 8621 et seq.).

21                 (2) 25 percent of the funds to the Weatheriza-  
22                 tion Assistance Program for Low-Income Persons  
23                 established under part A of title IV of the Energy  
24                 Conservation and Production Act (42 U.S.C. 6861  
25                 et seq.).

1           (3) 25 percent of the funds to the rural energy  
2           assistance program described in section 4502.

3 **SEC. 4502. RURAL ENERGY ASSISTANCE PROGRAM.**

4           The Secretary of Energy shall carry out a program  
5 to use the funds made available under section 4501(3) to  
6 provide financial assistance to promote the availability of  
7 reasonably-priced distributed electricity in off-grid rural  
8 regions in which electricity prices exceed 150 percent of  
9 the national average, as determined by the Secretary of  
10 Energy.

11           **Subtitle F—Climate Change**  
12           **Worker Training Program**

13 **SEC. 4601. FUNDING.**

14           All funds deposited into the Climate Change Worker  
15 Training Fund established by section 4101(2) shall be  
16 made available, without further appropriation or fiscal  
17 year limitation, to carry out the programs established  
18 under this subtitle.

19 **SEC. 4602. PURPOSES.**

20           The purposes of this subtitle are—

21           (1) to create a sustainable, comprehensive pub-  
22           lic program that provides quality training that is  
23           linked to jobs that are created through low-carbon  
24           energy, sustainable energy, and energy efficiency ini-  
25           tiatives;

1           (2) to satisfy industry demand for a skilled  
2 workforce, support economic growth, boost the glob-  
3 al competitiveness of the United States in expanding  
4 low-carbon energy, sustainable energy, and energy  
5 efficiency industries, and provide economic self-suffi-  
6 ciency and family-sustaining jobs for United States  
7 workers, including low-wage workers, through qual-  
8 ity training and placement in job opportunities in  
9 those industries; and

10           (3) to provide funds for Federal and State in-  
11 dustry-wide research, labor market information and  
12 labor exchange programs, and the development of  
13 Federal- and State-administered training programs.

14 **SEC. 4603. ESTABLISHMENT.**

15           Not later than 180 days after the date of enactment  
16 of this Act, the Secretary of Labor (referred to in this  
17 subtitle as the “Secretary”), in consultation with the Ad-  
18 ministrator and the Secretary of Energy, shall establish  
19 a climate change worker training program that achieves  
20 the purposes of this subtitle.

21 **SEC. 4604. ACTIVITIES.**

22           (a) NATIONAL RESEARCH PROGRAM.—Under the  
23 program established under section 4603, the Secretary,  
24 acting through the Bureau of Labor Statistics, shall pro-  
25 vide assistance to support national research to develop

1 labor market data and to track future workforce trends  
2 resulting from energy-related initiatives carried out under  
3 this section, including—

4           (1) linking research and development in low-  
5 carbon energy, sustainable energy, and energy effi-  
6 ciency technology with the development of standards  
7 and curricula for current and future jobs;

8           (2) the tracking and documentation of academic  
9 and occupational competencies and future skill needs  
10 with respect to low-carbon energy, sustainable en-  
11 ergy, and energy efficiency technology;

12           (3) tracking and documentation of occupational  
13 information and workforce training data with re-  
14 spect to low-carbon energy, sustainable energy, and  
15 energy efficiency technology;

16           (4) assessing new employment and work prac-  
17 tices, including career ladder and upgrade training  
18 and high-performance work systems; and

19           (5) collaborating with State agencies, industry,  
20 organized labor, and community and nonprofit orga-  
21 nizations to disseminate successful innovations for  
22 labor market services and worker training with re-  
23 spect to low-carbon energy, sustainable energy, and  
24 energy efficiency technology.

1 (b) NATIONAL ENERGY TRAINING PARTNERSHIP  
2 GRANTS.—

3 (1) GRANTS.—

4 (A) IN GENERAL.—Under the program es-  
5 tablished under section 4603, the Secretary  
6 shall award national energy training partner-  
7 ships grants on a competitive basis to eligible  
8 entities to enable the entities—

9 (i) to carry out national training that  
10 leads to economic self-sufficiency; and

11 (ii) to develop a low-carbon energy,  
12 sustainable energy, and energy efficiency  
13 industries workforce.

14 (B) DIVERSITY.—Grants shall be awarded  
15 under this paragraph so as to ensure geo-  
16 graphic diversity, with—

17 (i) at least 2 grants awarded to enti-  
18 ties located in each of the 4 Petroleum Ad-  
19 ministration for Defense Districts with no  
20 subdistricts; and

21 (ii) at least 1 grant awarded to an en-  
22 tity located in each of the subdistricts of  
23 the Petroleum Administration for Defense  
24 District with subdistricts.



1           (2) ELIGIBILITY.—To be eligible to receive a  
2 grant under paragraph (1), an entity shall be a non-  
3 profit partnership that—

4           (A) includes the equal participation of in-  
5 dustry, including public or private employers,  
6 and labor organizations, including joint labor-  
7 management training programs, and may in-  
8 clude community-based organizations, edu-  
9 cational institutions, small businesses, coopera-  
10 tives, State and local veterans agencies, and  
11 veterans service organizations; and

12           (B) demonstrates—

13           (i) experience in implementing and op-  
14 erating worker skills training and edu-  
15 cation programs;

16           (ii) the ability to identify and involve  
17 in training programs carried out using the  
18 grant, target populations of workers that  
19 are or will be engaged in activities relating  
20 to low-carbon energy, sustainable energy,  
21 and energy efficiency industries; and

22           (iii) the ability to help workers achieve  
23 economic self-sufficiency.

1           (3) ACTIVITIES.—Activities to be carried out  
2 using a grant provided under this subsection may in-  
3 clude—

4           (A) the provision of occupational skills  
5 training, including curriculum development, on-  
6 the-job training, and classroom training;

7           (B) the provision of safety and health  
8 training;

9           (C) the provision of basic skills, literacy,  
10 general equivalency degree, English as a second  
11 language, and job readiness training;

12           (D) individual referral and tuition assist-  
13 ance for a community college training program;

14           (E) the provision of customized training in  
15 conjunction with an existing registered appren-  
16 ticeship program or labor-management partner-  
17 ship;

18           (F) the provision of career ladder and up-  
19 grade training; and

20           (G) the implementation of transitional jobs  
21 strategies.

22           (c) STATE LABOR MARKET RESEARCH, INFORMA-  
23 TION, AND LABOR EXCHANGE RESEARCH PROGRAM.—

24           (1) IN GENERAL.—Under the program estab-  
25 lished under section 4603, the Secretary shall award

1 competitive grants to States to enable the States to  
2 administer labor market and labor exchange infor-  
3 mational programs that include the implementation  
4 of the activities described in paragraph (2).

5 (2) ACTIVITIES.—A State shall use amounts  
6 awarded under this subsection to provide funding to  
7 the State agency that administers the Wagner-  
8 Peyser Act (29 U.S.C. 49 et seq.) and State unem-  
9 ployment compensation programs to carry out the  
10 following activities using State agency merit staff:

11 (A) The identification of job openings in  
12 the low-carbon energy, sustainable energy, and  
13 energy efficiency sector.

14 (B) The administration of skill and apti-  
15 tude testing and assessment for workers.

16 (C) The counseling, case management, and  
17 referral of qualified job seekers to openings and  
18 training programs, including low-carbon energy,  
19 sustainable energy, and energy efficiency train-  
20 ing programs.

21 (d) STATE ENERGY TRAINING PARTNERSHIP PRO-  
22 GRAM.—

23 (1) IN GENERAL.—Under the program estab-  
24 lished under section 4603, the Secretary shall award  
25 competitive grants to States to enable the States to

1 administer low-carbon energy, sustainable energy,  
2 and energy efficiency workforce development pro-  
3 grams that include the implementation of the activi-  
4 ties described in paragraph (2).

5 (2) ACTIVITIES.—

6 (A) IN GENERAL.—A State shall use  
7 amounts awarded under the subsection to  
8 award competitive grants to eligible State en-  
9 ergy sector partnerships to enable the partner-  
10 ships to coordinate with existing apprenticeship  
11 and labor management training programs and  
12 implement training programs that lead to the  
13 economic self-sufficiency of trainees.

14 (B) ELIGIBILITY.—To be eligible to receive  
15 a grant under this subsection, a State energy  
16 sector partnership shall—

17 (i) consist of nonprofit organizations  
18 that include equal participation from in-  
19 dustry, including public or private non-  
20 profit employers, and labor organizations,  
21 including joint labor-management training  
22 programs, and may include representatives  
23 from local governments, worker investment  
24 agency one-stop career centers, community  
25 based organizations, community colleges,

1 other post-secondary institutions, small  
2 businesses, cooperatives, State and local  
3 veterans agencies, and veterans service or-  
4 ganizations;

5 (ii) demonstrate experience in imple-  
6 menting and operating worker skills train-  
7 ing and education programs; and

8 (iii) demonstrate the ability to identify  
9 and involve in training programs, target  
10 populations of workers that are or will be  
11 engaged in activities relating to low-carbon  
12 energy, sustainable energy, and energy ef-  
13 ficiency industries.

14 (C) PRIORITY.—In awarding grants under  
15 this subsection, the Secretary shall give priority  
16 to States that demonstrate linkages of activities  
17 under the grant with—

18 (i) meeting national energy policies  
19 associated with low-carbon energy, sustain-  
20 able energy, and energy efficiency; and

21 (ii) meeting State energy policies as-  
22 sociated with low-carbon energy, sustain-  
23 able energy, and energy efficiency.

24 (D) COORDINATION.—An entity that re-  
25 ceives a grant under this subsection shall—

- 1 (i) coordinate activities carried out  
2 under the grant with existing apprentice-  
3 ship and labor management training pro-  
4 grams; and
- 5 (ii) implement training programs that  
6 lead to the economic self-sufficiency of  
7 trainees, including providing—
- 8 (I) outreach and recruitment  
9 services, in coordination with the ap-  
10 propriate State agency;
- 11 (II) occupational skills training,  
12 including curriculum development, on-  
13 the-job training, and classroom train-  
14 ing;
- 15 (III) safety and health training;
- 16 (IV) basic skills, literacy, general  
17 equivalency degree, English as a sec-  
18 ond language, and job readiness train-  
19 ing;
- 20 (V) individual referral and tuition  
21 assistance for a community college  
22 training program;
- 23 (VI) customized training in con-  
24 junction with an existing registered

1 apprenticeship program or labor-man-  
2 agement partnership;  
3 (VII) career ladder and upgrade  
4 training; and  
5 (VIII) services under transitional  
6 jobs strategies.

7 **SEC. 4605. WORKER PROTECTIONS AND NONDISCRIMINA-**  
8 **TION REQUIREMENTS.**

9 (a) **APPLICABILITY OF WIA.**—Sections 181 and 188  
10 of the Workforce Investment Act of 1998 (29 U.S.C.  
11 2931, 2938) shall apply to all programs carried out using  
12 assistance under this subtitle.

13 (b) **CONSULTATION WITH LABOR ORGANIZATIONS.**—  
14 If a labor organization represents a substantial number  
15 of workers that are engaged in similar work or training  
16 in an area that is the same as the area that is proposed  
17 to be funded under this subtitle, the labor organization  
18 shall be provided an opportunity to be consulted and to  
19 submit comments in regard to such a proposal.

20 **SEC. 4606. WORKFORCE TRAINING AND SAFETY.**

21 (a) **UNIVERSITY PROGRAMS.**—In order to enhance  
22 the educational opportunities and safety of a future gen-  
23 eration of scientists, engineers, health physicists, and en-  
24 ergy workforce employees, 25 percent of the funds depos-  
25 ited into the Climate Change Worker Training Fund shall

1 be used for the University Programs within the Depart-  
2 ment of Energy, to help United States university and col-  
3 leges stay at the forefront of science education and re-  
4 search and assist universities in the operation of advanced  
5 energy research facilities and in the performance of other  
6 educational activities.

7 (b) EMPLOYEE ORGANIZATIONS.—The Secretary  
8 shall provide technical assistance and funds for training  
9 directly to nonprofit employee organizations, voluntary  
10 emergency response organizations, and joint labor-man-  
11 agement organizations that demonstrate experience in im-  
12 plementing and operating worker health and safety train-  
13 ing and education programs.

14 (c) WORKFORCE TRAINING.—

15 (1) IN GENERAL.—The Secretary of Labor, in  
16 cooperation with the Secretary of Energy, shall pro-  
17 mulgate regulations—

18 (A) to implement a program to provide  
19 workforce training to meet the high demand for  
20 workers skilled in zero- and low-emitting carbon  
21 energy technologies and provide for related  
22 safety issues;

23 (B) to implement a fully validated elec-  
24 trical craft certification program, career and  
25 technology awareness at the primary and sec-



1           ondary education level, preapprenticeship career  
2           technical education for all zero- and low-emit-  
3           ting carbon energy technologies related indus-  
4           trial skilled crafts, community college and skill  
5           center training for zero- and low-emitting car-  
6           bon energy technology technicians, development  
7           of construction management personnel for zero-  
8           and low-emitting carbon energy technology con-  
9           struction projects and regional grants for inte-  
10          grated zero- and low-emitting carbon energy  
11          technology workforce development programs;  
12          and

13                   (C) to ensure the safety of workers in such  
14          careers.

15           (2) CONSULTATION.—In carrying out this sub-  
16          section, the Secretary of Labor shall consult with  
17          relevant Federal agencies, representatives of the  
18          zero- and low-emitting carbon energy technologies  
19          industries, and organized labor, concerning skills  
20          and such safety measures that are needed in those  
21          industries.

22           (d) QUANTIFICATION.—For purposes of dispersing  
23          funds under this section, qualifying zero- and low-emitting  
24          carbon energy means any technology that has a rated ca-  
25          pacity of at least 750 megawatts of power.

1 **Subtitle G—Adaptation Program**  
2 **for Natural Resources in United**  
3 **States and Territories**

4 **SEC. 4701. DEFINITIONS.**

5 In this subtitle:

6 (1) **ECOLOGICAL PROCESS.**—

7 (A) **IN GENERAL.**—The term “ecological  
8 process” means a biological, chemical, or phys-  
9 ical interaction between the biotic and abiotic  
10 components of an ecosystem.

11 (B) **INCLUSIONS.**—The term “ecological  
12 process” includes—

13 (i) nutrient cycling;

14 (ii) pollination;

15 (iii) predator-prey relationships;

16 (iv) soil formation;

17 (v) gene flow;

18 (vi) larval dispersal and settlement;

19 (vii) hydrological cycling;

20 (viii) decomposition; and

21 (ix) disturbance regimes, such as fire  
22 and flooding.

23 (2) **FISH AND WILDLIFE.**—The term “fish and  
24 wildlife” means—

1 (A) any species of wild fauna, including  
2 fish and other aquatic species; and

3 (B) any fauna in a captive breeding pro-  
4 gram the object of which is to reintroduce indi-  
5 viduals of a depleted indigenous species into  
6 previously occupied range.

7 (3) HABITAT.—The term “habitat” means the  
8 physical, chemical, and biological properties that are  
9 used by wildlife (including aquatic and terrestrial  
10 plant communities) for growth, reproduction, and  
11 survival, food, water, cover, and space, on a tract of  
12 land, in a body of water, or in an area or region.

13 (4) INDIAN TRIBE.—The term “Indian tribe”  
14 has the meaning given the term in section 4 of the  
15 Indian Self-Determination and Education Assistance  
16 Act (25 U.S.C. 450b).

17 (5) PLANT.—The term “plant” means any spe-  
18 cies of wild flora.

19 (6) SECRETARY.—The term “Secretary” means  
20 the Secretary of the Interior.

21 (7) STATE.—The term “State” means—

22 (A) a State;

23 (B) the District of Columbia;

24 (C) the Commonwealth of Puerto Rico;

25 and

1 (D) any other territory or possession of the  
2 United States.

3 **SEC. 4702. ADAPTATION FUND.**

4 (a) AVAILABILITY OF AMOUNTS.—All amounts de-  
5 posited in the Adaptation Fund established by section  
6 4101(3) shall be made available, without further appro-  
7 priation or fiscal year limitation, to carry out activities (in-  
8 cluding research and education activities) that assist fish  
9 and wildlife, fish and wildlife habitat, plants, and associ-  
10 ated ecological processes in becoming more resilient,  
11 adapting to, and surviving the impacts of climate change  
12 and ocean acidification (referred to in this section as “ad-  
13 aptation activities”) pursuant to this section.

14 (b) DEPARTMENT OF THE INTERIOR.—Of the  
15 amounts made available annually to carry out this sub-  
16 section—

17 (1) 35 percent shall be allocated to the Sec-  
18 retary, and subsequently made available to States  
19 through the Wildlife Conservation and Restoration  
20 Account established under section 3(a)(2) of the  
21 Pittman-Robertson Wildlife Restoration Act (16  
22 U.S.C. 669b(a)(2)), to carry out adaptation activi-  
23 ties in accordance with comprehensive State adapta-  
24 tion strategies, as described in subsection (j);

1           (2) 19 percent shall be allocated to the Sec-  
2       retary for use in funding adaptation activities car-  
3       ried out—

4           (A) under endangered species, migratory  
5       bird, and other fish and wildlife programs ad-  
6       ministered by the United States Fish and Wild-  
7       life Service;

8           (B) on wildlife refuges and other public  
9       land under the jurisdiction of the United States  
10      Fish and Wildlife Service, the Bureau of Land  
11      Management, or the National Park Service; or

12          (C) within Federal water managed by the  
13      Bureau of Reclamation;

14          (3) 5 percent shall be allocated to the Secretary  
15      for adaptation activities carried out under coopera-  
16      tive grant programs, including—

17          (A) the cooperative endangered species  
18      conservation fund authorized under section 6(i)  
19      of the Endangered Species Act of 1973 (16  
20      U.S.C. 1535(i));

21          (B) programs under the North American  
22      Wetlands Conservation Act (16 U.S.C. 4401 et  
23      seq.);

24          (C) the multinational species conservation  
25      fund established under the heading “MULTI-

1 NATIONAL SPECIES CONSERVATION FUND” of  
2 title I of the Department of the Interior and  
3 Related Agencies Appropriations Act, 1999 (16  
4 U.S.C. 4246);

5 (D) the Neotropical Migratory Bird Con-  
6 servation Fund established by section 9(a) of  
7 the Neotropical Migratory Bird Conservation  
8 Act (16 U.S.C. 6108(a));

9 (E) the Coastal Program of the United  
10 States Fish and Wildlife Service;

11 (F) the National Fish Habitat Action  
12 Plan;

13 (G) the Partners for Fish and Wildlife  
14 Program;

15 (H) the Landowner Incentive Program;

16 (I) the Wildlife Without Borders Program  
17 of the United States Fish and Wildlife Service;  
18 and

19 (J) the Park Flight Migratory Bird Pro-  
20 gram of the National Park Service; and

21 (4) 1 percent shall be allocated to the Secretary  
22 and subsequently made available to Indian tribes to  
23 carry out adaptation activities through the tribal  
24 wildlife grants program of the United States Fish  
25 and Wildlife Service.

1 (c) LAND AND WATER CONSERVATION FUND.—

2 (1) DEPOSITS.—

3 (A) IN GENERAL.—Except as provided in  
4 paragraph (2), of the amounts made available  
5 for each fiscal year to carry out this subsection,  
6 10 percent shall be deposited into the Land and  
7 Water Conservation Fund established under  
8 section 2 of the Land and Water Conservation  
9 Fund Act of 1965 (16 U.S.C. 4601–5).

10 (B) Deposits to the Land and Water Con-  
11 servation Fund under this subsection shall—

12 (i) be supplemental to authorizations  
13 provided under section 3 of the Land and  
14 Water Conservation Fund Act of 1965 (16  
15 U.S.C. 4601–6); and

16 (ii) remain available for non-adapta-  
17 tion needs.

18 (2) EXCEPTION.—For any fiscal year in which  
19 a deposit into the Land and Water Conservation  
20 Fund under paragraph (1) would result in an  
21 amount greater than \$900,000,000—

22 (A) \$900,000,000 shall be deposited into  
23 the Land and Water Conservation Fund; and

1 (B) the remaining funds shall be distrib-  
2 uted on a pro rata basis as otherwise provided  
3 in this section.

4 (3) ALLOCATIONS.—Of the amounts deposited  
5 under this subsection into the Land and Water Con-  
6 servation Fund—

7 (A)  $\frac{1}{6}$  shall be allocated to the Secretary  
8 and made available to carry out section 6 of the  
9 Land and Water Conservation Fund Act of  
10 1965 (16 U.S.C. 4601–8) to States, on a com-  
11 petitive basis—

12 (i) in accordance with comprehensive  
13 wildlife conservation strategies and Indian  
14 tribes, to carry out adaptation activities  
15 through the acquisition of land and inter-  
16 ests in land;

17 (ii) notwithstanding section 5 of that  
18 Act (16 U.S.C. 4601–7); and

19 (iii) in addition to grants provided  
20 pursuant to—

21 (I) annual appropriations Acts;

22 (II) the Energy Policy Act of  
23 2005 (42 U.S.C. 15801 et seq.); or

24 (III) any other authorization for  
25 nonadaptation needs;



1           (B)  $\frac{1}{3}$  shall be allocated to the Secretary  
2           to carry out adaptation activities through the  
3           acquisition of lands and interests in land under  
4           section 7 of the Land and Water Conservation  
5           Fund Act of 1965 (16 U.S.C. 4601–9);

6           (C)  $\frac{1}{6}$  shall be allocated to the Secretary  
7           of Agriculture and made available to the States  
8           to carry out adaptation activities through the  
9           acquisition of land and interests in land under  
10          section 7 of the Forest Legacy Program under  
11          the Cooperative Forestry Assistance Act of  
12          1978 (16 U.S.C. 2103c); and

13          (D)  $\frac{1}{3}$  shall be allocated to the Secretary  
14          of Agriculture to carry out adaptation activities  
15          through the acquisition of land and interests in  
16          land under section 7 of the Land and Water  
17          Conservation Fund Act of 1965 (16 U.S.C.  
18          4601–9).

19          (4) EXPENDITURE OF FUNDS.—In allocating  
20          funds under subsection (c), the Secretary and the  
21          Secretary of Agriculture shall take into consideration  
22          factors including—

23                  (A) the availability of non-Federal con-  
24                  tributions from State, local, or private sources;

1 (B) opportunities to protect wildlife cor-  
2 ridors or otherwise to link or consolidate frag-  
3 mented habitats;

4 (C) opportunities to reduce the risk of cat-  
5 astrophic wildfires, extreme flooding, or other  
6 climate-related events that are harmful to fish  
7 and wildlife and people;

8 (D) the potential for conservation of spe-  
9 cies or habitat types at serious risk due to cli-  
10 mate change, ocean acidification, and other  
11 stressors; and

12 (E) the potential to provide enhanced ac-  
13 cess to land and water for fishing, hunting, and  
14 other public recreational uses.

15 (d) FOREST SERVICE.—Of the amounts made avail-  
16 able annually to carry out this section, 5 percent shall be  
17 allocated to the Secretary of Agriculture for use in funding  
18 adaptation activities carried out on national forests and  
19 national grasslands under the jurisdiction of the Forest  
20 Service, or pursuant to the cooperative Wings Across the  
21 Americas Program.

22 (e) ENVIRONMENTAL PROTECTION AGENCY.—Of the  
23 amounts made available annually to carry out this section,  
24 5 percent shall be allocated to the Administrator for use  
25 in adaptation activities restoring and protecting—

1           (1) large-scale freshwater aquatic ecosystems,  
2           such as the Everglades, the Great Lakes, Flathead  
3           Lake, the Missouri River, the Mississippi River, the  
4           Colorado River, the Sacramento-San Joaquin Rivers,  
5           the Ohio River, the Columbia-Snake River System,  
6           the Apalachicola, Chattahoochee and Flint River  
7           System, the Connecticut River, and the Yellowstone  
8           River;

9           (2) large-scale estuarine ecosystems, such as  
10          Chesapeake Bay, Long Island Sound, Puget Sound,  
11          the Mississippi River Delta , San Francisco Bay  
12          Delta, Narragansett Bay, and Albemarle-Pamlico  
13          Sound; and

14          (3) freshwater and estuarine ecosystems, water-  
15          sheds, and basins identified as priorities by the Ad-  
16          ministrator, working in cooperation with other Fed-  
17          eral agencies, States, local governments, scientists,  
18          and other conservation partners.

19          (f) CORPS OF ENGINEERS.—Of the amounts made  
20          available annually to carry out this section, 10 percent  
21          shall be allocated to the Secretary of the Army for use  
22          by the Corps of Engineers to carry out adaptation activi-  
23          ties restoring—

1           (1) large-scale freshwater aquatic ecosystems,  
2           such as the ecosystems described in subsection  
3           (e)(1);

4           (2) large-scale estuarine ecosystems, such as  
5           the ecosystems described in subsection (e)(2);

6           (3) freshwater and estuarine ecosystems, water-  
7           sheds, and basins identified as priorities by the  
8           Corps of Engineers, working in cooperation with  
9           other Federal agencies, States, local governments,  
10          scientists, and other conservation partners; and

11          (4) habitats or ecosystems under programs such  
12          as the Estuary Restoration Act of 2000 (33 U.S.C.  
13          2901 et seq.), project modifications for improvement  
14          of the environment, and aquatic restoration under  
15          section 206 of the Water Resources Development  
16          Act of 1996 (33 U.S.C. 2330).

17          (g) DEPARTMENT OF COMMERCE.—Of the amounts  
18          made available annually to carry out this section, 10 per-  
19          cent shall be allocated to the Secretary of Commerce for  
20          use in funding adaptation activities to protect, maintain,  
21          and restore coastal, estuarine, and marine resources, habi-  
22          tats, and ecosystems, including such activities carried out  
23          under—

24                 (1) the coastal and estuarine land conservation  
25                 program;

1 (2) the community-based restoration program;

2 (3) the Coastal Zone Management Act of 1972  
3 (16 U.S.C. 1451 et seq.), subject to the condition  
4 that State coastal agencies shall incorporate, and the  
5 Secretary of Commerce shall approve, coastal zone  
6 management plan elements that are—

7 (A) consistent with the national adaptation  
8 strategy under subsection (i), as part of a  
9 coastal zone management program established  
10 under this Act; and

11 (B) specifically designed to strengthen the  
12 ability of coastal, estuarine, and marine re-  
13 sources, habitats, and ecosystems to adapt to  
14 and withstand the impacts of—

15 (i) global warming; and

16 (ii) where practicable, ocean acidifica-  
17 tion;

18 (4) the Open Rivers Initiative;

19 (5) the Magnuson Fishery Conservation and  
20 Management Act (16 U.S.C. 1801 et seq.);

21 (6) the Marine Mammal Protection Act of 1972  
22 (16 U.S.C. 1361 et seq.);

23 (7) the Endangered Species Act of 1973 (16  
24 U.S.C. 1531 et seq.);

1           (8) the Marine Protection, Research, and Sanc-  
2           tuaries Act of 1972 (33 U.S.C. 1401 et seq.); and

3           (9) the Coral Reef Conservation Act of 2000  
4           (16 U.S.C. 6401 et seq.).

5           (h) COST SHARING.—Notwithstanding any other pro-  
6           vision of law, a State or Indian tribe that receives a grant  
7           under paragraph (1) or (4) of subsection (b) shall provide  
8           10 percent of the costs of each activity carried out using  
9           amounts under the grant.

10          (i) NATIONAL ADAPTATION STRATEGY.—

11           (1) IN GENERAL.—Effective beginning on the  
12           date on which the President establishes the national  
13           strategy under paragraph (3), funds made available  
14           under paragraphs (2), (3), and (4) of subsection (b)  
15           and subsections (c) through (g) shall be used only  
16           for adaptation activities that are consistent with the  
17           national strategy.

18           (2) INITIAL PERIOD.—Until the date on which  
19           the President establishes the national strategy under  
20           paragraph (3), funds made available under para-  
21           graphs (2), (3), and (4) of subsection (b) and sub-  
22           sections (c) through (g) shall be used only for adap-  
23           tation activities that are consistent with a workplan  
24           established by the President.

25           (3) NATIONAL STRATEGY.—

1 (A) IN GENERAL.—Not later than 3 years  
2 after the date of enactment of this Act, the  
3 President shall develop and implement a na-  
4 tional strategy for assisting fish and wildlife,  
5 fish and wildlife habitat, plants, and associated  
6 ecological processes in becoming more resilient  
7 and adapting to the impacts of climate change  
8 and ocean acidification.

9 (B) ADMINISTRATION.—In establishing  
10 and revising the national strategy, the Presi-  
11 dent shall—

12 (i) base the national strategy on the  
13 best available science, as identified by the  
14 Science Advisory Board established under  
15 subparagraph (D);

16 (ii) develop the national strategy in  
17 cooperation with State fish and wildlife  
18 agencies, State coastal agencies, United  
19 States territories, and Indian tribes;

20 (iii) coordinate with the Secretary of  
21 the Interior, the Secretary of Commerce,  
22 the Secretary of Agriculture, the Secretary  
23 of Defense, the Administrator of the Envi-  
24 ronmental Protection Agency, and other  
25 agencies as appropriate;

1 (iv) consult with local governments,  
2 conservation organizations, scientists, and  
3 other interested stakeholders; and

4 (v) provide public notice and oppor-  
5 tunity for comment.

6 (C) CONTENTS.—The President shall in-  
7 clude in the national strategy, at a minimum,  
8 prioritized goals and measures and a schedule  
9 for implementation—

10 (i) to identify and monitor fish and  
11 wildlife, fish and wildlife habitat, plants,  
12 and associated ecological processes that are  
13 particularly likely to be adversely affected  
14 by climate change and ocean acidification  
15 and have the greatest need for conserva-  
16 tion;

17 (ii) to identify and monitor coastal,  
18 estuarine, marine, terrestrial, and fresh-  
19 water habitats that are at the greatest risk  
20 of being damaged by climate change and  
21 ocean acidification;

22 (iii) to assist species in adapting to  
23 the impacts of climate change and ocean  
24 acidification;



1 (iv) to protect, acquire, maintain, and  
2 restore fish and wildlife habitat to build re-  
3 silience to climate change and ocean acidi-  
4 fication;

5 (v) to provide habitat linkages and  
6 corridors to facilitate fish, wildlife, and  
7 plant movement in response to climate  
8 change and ocean acidification;

9 (vi) to restore and protect ecological  
10 processes that sustain fish, wildlife, and  
11 plant populations that are vulnerable to cli-  
12 mate change and ocean acidification;

13 (vii) to protect, maintain, and restore  
14 coastal, marine, and aquatic ecosystems so  
15 that the ecosystems are more resilient and  
16 better able to withstand the additional  
17 stresses associated with climate change, in-  
18 cluding relative sea level rise and ocean  
19 acidification;

20 (viii) to protect ocean and coastal spe-  
21 cies from the impact of climate change and  
22 ocean acidification;

23 (ix) to incorporate adaptation strate-  
24 gies and activities to address relative sea  
25 level rise in coastal zone planning;

1           (x) to protect, maintain, and restore  
2 ocean and coastal habitats to build healthy  
3 and resilient ecosystems, including the pur-  
4 chase of coastal and island land; and

5           (xi) to incorporate consideration of cli-  
6 mate change and ocean acidification, and  
7 to integrate adaptation strategies and ac-  
8 tivities for fish and wildlife, fish and wild-  
9 life habitat, plants, and associated ecologi-  
10 cal processes, in the planning and manage-  
11 ment of Federal land and water adminis-  
12 tered by the Federal agencies that receive  
13 funding under this section.

14 (D) SCIENCE ADVISORY BOARD.—

15           (i) ESTABLISHMENT.—Not later than  
16 180 days after the date of enactment of  
17 this Act, the Secretary shall establish and  
18 appoint the members of a science advisory  
19 board, to be comprised of not fewer than  
20 10 and not more than 20 members, who  
21 shall—

22                   (I) be recommended by the Presi-  
23 dent of the National Academy of  
24 Sciences;

1 (II) have expertise in fish, wild-  
2 life, plant, aquatic, and coastal and  
3 marine biology, ecology, climate  
4 change, ocean acidification, and other  
5 relevant scientific disciplines; and

6 (III) represent a balanced mem-  
7 bership between Federal, State, and  
8 local representatives, universities, and  
9 conservation organizations.

10 (ii) DUTIES.—The science advisory  
11 board shall—

12 (I) advise the President and rel-  
13 evant Federal agencies and depart-  
14 ments on—

15 (aa) the best available  
16 science regarding the impacts of  
17 climate change and ocean acidifi-  
18 cation on fish and wildlife, habi-  
19 tat, plants, and associated eco-  
20 logical processes; and

21 (bb) scientific strategies and  
22 mechanisms for adaptation; and

23 (II) identify and recommend pri-  
24 orities for ongoing research needs on  
25 those issues.

1 (iii) COLLABORATION.—The science  
2 advisory board shall collaborate with other  
3 climate change and ecosystem research en-  
4 tities in other Federal agencies and depart-  
5 ments.

6 (iv) AVAILABILITY TO PUBLIC.—The  
7 advice and recommendations of the science  
8 advisory board shall be made available to  
9 the public.

10 (v) NONAPPLICABILITY OF FACA.—  
11 The Federal Advisory Committee Act (5  
12 U.S.C. App.) shall not apply to the science  
13 advisory board.

14 (E) COORDINATION WITH OTHER PLANS.—  
15 In developing the national strategy, the Presi-  
16 dent shall, to the maximum extent prac-  
17 ticable—

18 (i) take into consideration research  
19 and information contained in—

20 (I) State comprehensive wildlife  
21 conservation plans;

22 (II) the North American water-  
23 fowl management plan;

24 (III) the national fish habitat ac-  
25 tion plan;

1 (IV) coastal zone management  
2 plans;

3 (V) the reports of the Pew  
4 Oceans Commission and the United  
5 States Commission on Ocean Policy;  
6 and

7 (VI) other relevant plans; and

8 (ii) coordinate and integrate the goals  
9 and measures identified in the national  
10 strategy with the goals and measures iden-  
11 tified in those plans.

12 (F) REVISIONS.—Not later than 5 years  
13 after the date on which the strategy is devel-  
14 oped, and not less frequently than every 5 years  
15 thereafter, the President shall review and up-  
16 date the national strategy using the procedures  
17 described in this paragraph.

18 (j) STATE COMPREHENSIVE ADAPTATION STRATE-  
19 GIES.—

20 (1) IN GENERAL.—Except as provided in para-  
21 graph (2), funds made available to States under this  
22 subtitle shall be used only for activities that are con-  
23 sistent with a State strategy that has been approved  
24 by, as appropriate—

25 (A) the Secretary of the Interior; or

1 (B) for any State with a coastal zone  
2 (within the meaning of the Coastal Zone Man-  
3 agement Act (16 U.S.C. 1451 et seq.)), by the  
4 Secretary of Commerce, subject to the condition  
5 that approval by the Secretary of Commerce  
6 shall be required only for those portions of the  
7 strategy relating to activities affecting the  
8 coastal zone.

9 (2) INITIAL PERIOD.—

10 (A) IN GENERAL.—Until the earlier of the  
11 date that is 3 years after the date of enactment  
12 of this Act or the date on which a State re-  
13 ceives approval for the State strategy, a State  
14 shall be eligible to receive funding under sub-  
15 section (b)(1) for adaptation activities that  
16 are—

17 (i) consistent with the comprehensive  
18 wildlife strategy of the State and, where  
19 appropriate, other fish, wildlife and con-  
20 servation strategies; and

21 (ii) in accordance with a workplan de-  
22 veloped in coordination with, as appro-  
23 priate—

24 (I) the Secretary of the Interior;

25 or

1 (II) for any State with a coastal  
2 zone (within the meaning of the  
3 Coastal Zone Management Act (16  
4 U.S.C. 1451 et seq.)), by the Sec-  
5 retary of Commerce, subject to the  
6 condition that approval by the Sec-  
7 retary of Commerce shall be required  
8 only for those portions of the strategy  
9 relating to activities affecting the  
10 coastal zone.

11 (B) PENDING APPROVAL.—During the pe-  
12 riod for which approval by the applicable Sec-  
13 retary of a State strategy described in para-  
14 graph (3) is pending, the State may continue  
15 receiving funds under subsection (b)(1) pursu-  
16 ant to the workplan described subparagraph  
17 (A)(ii).

18 (3) REQUIREMENTS.—A State strategy shall—  
19 (A) describe the impacts of climate change  
20 and ocean acidification on the diversity and  
21 health of the fish, wildlife and plant popu-  
22 lations, habitats, and associated ecological proc-  
23 esses;

1 (B) describe and prioritize proposed con-  
2 servation actions to assist fish, wildlife, and  
3 plant populations in adapting to those impacts;

4 (C) establish programs for monitoring the  
5 impacts of climate change on fish, wildlife, and  
6 plant populations, habitats, and associated eco-  
7 logical processes;

8 (D) include strategies, specific conservation  
9 actions, and a timeframe for implementing con-  
10 servation actions for fish, wildlife, and plant  
11 populations, habitats, and associated ecological  
12 processes;

13 (E) establish methods for assessing the ef-  
14 fectiveness of conservation actions taken to as-  
15 sist fish, wildlife, and plant populations, habi-  
16 tats, and associated ecological processes in  
17 adapting to those impacts and for updating  
18 those actions to respond appropriately to new  
19 information or changing conditions;

20 (F) be developed—

21 (i) with the participation of the State  
22 fish and wildlife agency, the State agency  
23 responsible for administration of Land and  
24 Water Conservation Fund grants, the



1 State Forest Legacy program coordinator,  
2 and the State coastal agency; and

3 (ii) in coordination with the Secretary  
4 of the Interior and, where applicable, the  
5 Secretary of Commerce;

6 (G) provide for solicitation and consider-  
7 ation of public and independent scientific input;

8 (H) take into consideration research and  
9 information contained in, and coordinate with  
10 and integrate the goals and measures identified  
11 in, as appropriate, other fish, wildlife, and habi-  
12 tat conservation strategies, including—

13 (i) the national fish habitat action  
14 plan;

15 (ii) plans under the North American  
16 Wetlands Conservation Act (16 U.S.C.  
17 4401 et seq.);

18 (iii) the Federal, State, and local part-  
19 nership known as “Partners in Flight”;

20 (iv) federally approved coastal zone  
21 management plans under the Coastal Zone  
22 Management Act of 1972 (16 U.S.C. 1451  
23 et seq.);

24 (v) federally approved regional fishery  
25 management plans and habitat conserva-

1           tion activities under the Magnuson Fishery  
2           Conservation and Management Act (16  
3           U.S.C. 1801 et seq.);

4           (vi) the national coral reef action  
5           plan;

6           (vii) recovery plans for threatened  
7           species and endangered species under sec-  
8           tion 4(f) of the Endangered Species Act of  
9           1973 (16 U.S.C. 1533(f));

10          (viii) habitat conservation plans under  
11          section 10 of that Act (16 U.S.C. 1539);

12          (ix) other Federal and State plans for  
13          imperiled species;

14          (x) the United States shorebird con-  
15          servation plan;

16          (xi) the North American waterbird  
17          conservation plan; and

18          (xii) other State-based strategies that  
19          comprehensively implement adaptation ac-  
20          tivities to remediate the effects of climate  
21          change and ocean acidification on fish,  
22          wildlife, and habitats; and

23          (I) be incorporated into a revision of the  
24          comprehensive wildlife conservation strategy of  
25          a State—

1 (i) that has been submitted to the  
2 United States Fish and Wildlife Service;  
3 and

4 (ii)(I) that has been approved by the  
5 Service; or

6 (II) on which a decision on approval is  
7 pending.

8 (4) UPDATING.—Each State strategy described  
9 in paragraph (3) shall be updated at least every 5  
10 years.

11 **Subtitle H—International Climate**  
12 **Change Adaptation and Na-**  
13 **tional Security Program**

14 **SEC. 4801. FINDINGS.**

15 Congress finds that—

16 (1) global climate change represents a poten-  
17 tially significant threat multiplier for instability  
18 around the world as changing precipitation patterns  
19 may exacerbate competition and conflict over agri-  
20 cultural, vegetative, and water resources and dis-  
21 place people, thus increasing hunger and poverty  
22 and causing increased pressure on least developed  
23 countries;

24 (2) the strategic, social, political, and economic  
25 consequences of global climate change could have

1 disproportionate impacts on least developed coun-  
2 tries, which have fewer resources and thus, often  
3 fewer emissions;

4 (3) the strategic, social, political, and economic  
5 consequences of global climate change are likely to  
6 have a greater adverse effect on less developed coun-  
7 tries;

8 (4) the consequences of global climate change  
9 could pose a danger to the security interest and eco-  
10 nomic interest of the United States; and

11 (5) it is in the national security interest of the  
12 United States to recognize, plan for, and mitigate  
13 the international strategic, social, political, and eco-  
14 nomic effects of a changing climate.

15 **SEC. 4802. PURPOSES.**

16 The purposes of this subtitle are—

17 (1) to protect the national security of the  
18 United States where such interest can be advanced  
19 by minimizing, averting, or increasing resilience to  
20 potentially destabilizing climate change impacts;

21 (2) to support the development of national and  
22 regional climate change adaptation plans in least de-  
23 veloped countries;

24 (3) to support the deployment of technologies  
25 that would help least developed countries reduce

1 their greenhouse gas emissions and respond to de-  
2 stabilizing impacts of climate change;

3 (4) to provide assistance to least-developed  
4 countries and small island developing states with na-  
5 tional or regional climate change adaptation plans in  
6 the planning, financing, and execution of adaptation  
7 projects;

8 (5) to support investments and capital to re-  
9 duce vulnerability related to climate change and its  
10 impacts, including but not limited to drought, fam-  
11 ine, floods, sea level rise, shifts in agricultural zones  
12 or seasons, shifts in range that affect economic live-  
13 lihoods, and refugees and internally displaced per-  
14 sons;

15 (6) to support climate change adaptation re-  
16 search in or for least developed countries; and

17 (7) to encourage the identification and adoption  
18 of appropriate low-carbon and efficient energy tech-  
19 nologies in least-developed countries.

20 **SEC. 4803. ESTABLISHMENT.**

21 (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
22 of State, working with the Administrator of the U.S.  
23 Agency for International Development (referred to in this  
24 subtitle as the “Agency”) and the Administrator, shall es-

1 establish an International Climate Change Adaptation and  
2 National Security Program within the Agency.

3 (b) RESPONSIBILITIES OF PROGRAM.—The Program  
4 shall—

5 (1) submit annual reports to the President, the  
6 Committees on Environment and Public Works and  
7 Foreign Relations of the Senate, and the Commit-  
8 tees on Energy and Commerce and Foreign Rela-  
9 tions of the House of Representatives, and any other  
10 relevant committees on national security, the econ-  
11 omy and foreign policy, that describe—

12 (A) the extent to which other countries are  
13 committing to reducing greenhouse gas emis-  
14 sions through mandatory programs;

15 (B) the extent to which global climate  
16 change, through its potential negative impacts  
17 on sensitive populations and natural resources  
18 in least developed countries, may threaten,  
19 cause, or exacerbate political instability or  
20 international conflict in those regions; and

21 (C) the ramifications of any potentially de-  
22 stabilizing impacts climate change may have on  
23 the economic and national security of the  
24 United States, including—

25 (i) the creation of refugees; and

1 (ii) international or internal armed  
2 conflicts over water, food, land, or other  
3 resources;

4 (2) include in each annual report submitted  
5 under paragraph (1) a description of how funds  
6 made available under section 4804 were spent to en-  
7 hance the national security of the United States and  
8 assist in avoiding the politically destabilizing impacts  
9 of climate change in volatile regions of the world,  
10 particularly least developed countries; and

11 (3) identify and recommend the countries in  
12 which assistance can have the greatest and most  
13 sustainable benefit to reducing vulnerability to cli-  
14 mate change, primarily in the form of deploying ad-  
15 aptation and greenhouse gas reduction technologies.

16 **SEC. 4804. FUNDING.**

17 (a) CARRYING OUT RECOMMENDATIONS.—All funds  
18 deposited into the Climate Change and National Security  
19 Fund established by section 4101(4) shall be made avail-  
20 able, without further appropriation or fiscal year limita-  
21 tion, to carry out the program established under this sub-  
22 title.

23 (b) DISTRIBUTION OF FUNDS.—The Administrator  
24 of the Agency shall distribute to the International Climate

1 Change Adaptation and National Security Program the  
2 funds for the purposes described in section 4802.

3 (c) OVERSIGHT.—The Administrator of the Agency  
4 shall oversee the expenditures by the Program.

5 (d) LIMITATIONS.—Not more than 10 percent of  
6 amounts made available to carry out this subtitle shall be  
7 spent in any single country in any year.

## 8 **Subtitle I—Emergency Firefighting** 9 **Programs**

### 10 **SEC. 4901. FINDINGS.**

11 Congress finds that—

12 (1) since 1980, wildfires in the United States  
13 have burned almost twice as many acres per year on  
14 average than the average burned acreage during the  
15 period beginning on January 1, 1920, and ending on  
16 December 31, 1979;

17 (2) the wildfire season in the western United  
18 States has increased by an average of 78 days dur-  
19 ing the 30-year period preceding the date of enact-  
20 ment of this Act;

21 (3) researchers predict that the area subject to  
22 wildfire damage will increase during the 21st cen-  
23 tury by up to 118 percent as a result of climate  
24 change;



1 (4) of the annual budget of the Forest Service,  
2 the Forest Service used for wildfire suppression ac-  
3 tivities—

4 (A) 13 percent in 1991; and

5 (B) 45 percent in 2007; and

6 (5) 1 percent of the largest escaped fires—

7 (A) burn 95 percent of all burned acres;

8 and

9 (B) consume 85 percent of all wildfire

10 fighting costs.

11 **SEC. 4902. BUREAU OF LAND MANAGEMENT EMERGENCY**

12 **FIREFIGHTING PROGRAM.**

13 (a) USE OF FUNDS.—The amounts deposited into the  
14 Bureau of Land Management Emergency Firefighting  
15 Fund established by section 4101(5) shall be made avail-  
16 able, without further appropriation or fiscal year limita-  
17 tion, to pay for wildland fire suppression activities the  
18 costs of which are in excess of amounts annually appro-  
19 priated to the Secretary of the Interior for normal, non-  
20 emergency wildland fire suppression activities.

21 (b) ACCOUNTING AND REPORTING.—

22 (1) IN GENERAL.—Not later than 3 years after  
23 the date of enactment of this Act, the Secretary of  
24 the Interior shall establish an accounting and report-  
25 ing system, in accordance and compatible with Na-

1 tional Fire Plan reporting procedures, for the activi-  
2 ties carried out under this section.

3 (2) REQUIREMENT.—The system established  
4 under paragraph (1) shall require that the Secretary  
5 of the Interior shall submit to the Committee on  
6 Natural Resources of the House of Representatives  
7 and the Committee on Energy and Natural Re-  
8 sources of the Senate—

9 (A) a monthly report describing each ex-  
10 penditure made from the Bureau of Land Man-  
11 agement Emergency Firefighting Fund during  
12 the preceding month; and

13 (B) a report at the end of each fiscal year  
14 describing the expenditures made from the Bu-  
15 reau of Land Management Emergency Fire-  
16 fighting Fund during the preceding fiscal year.

17 **SEC. 4903. FOREST SERVICE EMERGENCY FIREFIGHTING**  
18 **PROGRAM.**

19 (a) USE OF FUNDS.—The amounts deposited into the  
20 Forest Service Emergency Firefighting Fund established  
21 by section 4101(6) shall be made available, without fur-  
22 ther appropriation or fiscal year limitation, to pay for  
23 wildland fire suppression activities the costs of which are  
24 in excess of amounts annually appropriated to the Sec-

1 retary of Agriculture for normal, nonemergency wildland  
2 fire suppression activities.

3 (b) ACCOUNTING AND REPORTING.—

4 (1) IN GENERAL.—Not later than 3 years after  
5 the date of enactment of this Act, the Secretary of  
6 Agriculture shall establish an accounting and report-  
7 ing system, in accordance and compatible with Na-  
8 tional Fire Plan reporting procedures, for the activi-  
9 ties carried out under this section.

10 (2) REQUIREMENT.—The system established  
11 under paragraph (1) shall require that the Secretary  
12 of Agriculture shall submit to the Committee on  
13 Natural Resources of the House of Representatives  
14 and the Committee on Energy and Natural Re-  
15 sources of the Senate—

16 (A) a monthly report describing each ex-  
17 penditure made from the Forest Service Emer-  
18 gency Firefighting Fund during the preceding  
19 month; and

20 (B) a report at the end of each fiscal year  
21 describing the expenditures made from the For-  
22 est Service Emergency Firefighting Fund dur-  
23 ing the preceding fiscal year.

1 **TITLE V—ENERGY EFFICIENCY**

2 **Subtitle A—Appliance Efficiency**

3 **SEC. 5101. RESIDENTIAL BOILERS.**

4 Section 325(f) of the Energy Policy and Conservation  
5 Act (42 U.S.C. 6925(f)) is amended—

6 (1) in the subsection heading, by inserting  
7 “AND BOILERS” after “FURNACES”;

8 (2) in paragraph (1), by striking “except that”  
9 and all that follows through subparagraph (A) and  
10 inserting “except that”;

11 (3) in subparagraph (B)—

12 (A) by striking “(B) the Secretary” and  
13 inserting “the Secretary”; and

14 (B) by redesignating clauses (i) through  
15 (iii) as subparagraphs (A) through (C), respec-  
16 tively, and indenting appropriately;

17 (4) by redesignating paragraph (3) as para-  
18 graph (4); and

19 (5) by inserting after paragraph (2) the fol-  
20 lowing:

21 “(3) BOILERS.—

22 “(A) IN GENERAL.—Subject to subpara-  
23 graphs (B) and (C), boilers manufactured on or  
24 after September 1, 2012, shall meet the fol-  
25 lowing requirements:

“Boiler Type Requirements	Minimum Annual Fuel Utilization Efficiency	Design
Gas hot water .....	82 percent	No constant burning pilot, automatic means for adjust- ing water temperature
Gas steam .....	80 percent	No constant burning pilot
Oil hot water .....	84 percent	Automatic means for adjusting temperature
Oil steam .....	82 percent	None
Electric hot water .....	None	Automatic means for adjusting temperature
Electric steam .....	None	None

1                   “(B) AUTOMATIC MEANS FOR ADJUSTING  
2                   WATER TEMPERATURE.—

3                   “(i) IN GENERAL.—The manufacturer  
4                   shall equip each gas, oil, and electric hot  
5                   water boiler (other than a boiler equipped  
6                   with tankless domestic water heating coils)  
7                   with an automatic means for adjusting the  
8                   temperature of the water supplied by the  
9                   boiler to ensure that an incremental  
10                  change in inferred heat load produces a  
11                  corresponding incremental change in the  
12                  temperature of water supplied.

13                  “(ii) CERTAIN BOILERS.—For a boiler  
14                  that fires at 1 input rate, the requirements  
15                  of this subparagraph may be satisfied by  
16                  providing an automatic means that allows  
17                  the burner or heating element to fire only  
18                  when the means has determined that the

1           inferred heat load cannot be met by the re-  
2           sidual heat of the water in the system.

3           “(iii) NO INFERRED HEAT LOAD.—  
4           When there is no inferred heat load with  
5           respect to a hot water boiler, the automatic  
6           means described in clauses (i) and (ii)  
7           shall limit the temperature of the water in  
8           the boiler to not more than 140 degrees  
9           Fahrenheit.

10          “(iv) OPERATION.—A boiler described  
11          in clause (i) or (ii) shall be operable only  
12          when the automatic means described in  
13          clauses (i), (ii), and (iii) is installed.

14          “(C) EXCEPTION.—A boiler that is manu-  
15          factured to operate without any need for elec-  
16          tricity, any electric connection, any electric  
17          gauges, electric pumps, electric wires, or electric  
18          devices of any sort, shall not be required to  
19          meet the requirements of this subsection.”.

20 **SEC. 5102. REGIONAL VARIATIONS IN HEATING OR COOL-**  
21 **ING STANDARDS.**

22          (a) IN GENERAL.—Section 327 of the Energy Policy  
23 and Conservation Act (42 U.S.C. 6297) is amended—

24                 (1) by redesignating subsections (e), (f), and  
25                 (g) as subsections (f), (g), and (h), respectively; and

1           (2) by inserting after subsection (d) the fol-  
2           lowing:

3           “(e) REGIONAL STANDARDS FOR SPACE HEATING  
4           AND AIR CONDITIONING PRODUCTS.—

5           “(1) STANDARDS.—

6           “(A) IN GENERAL.—The Secretary may es-  
7           tablish regional standards for space heating and  
8           air conditioning products, other than window-  
9           unit air-conditioners and portable space heaters.

10          “(B) NATIONAL MINIMUM AND REGIONAL  
11          STANDARDS.—For each space heating and air  
12          conditioning product, the Secretary may estab-  
13          lish—

14                 “(i) a national minimum standard;  
15                 and

16                 “(ii) 2 more stringent regional stand-  
17                 ards for regions determined to have signifi-  
18                 cantly differing climatic conditions.

19          “(C) MAXIMUM SAVINGS.—Any standards  
20          established for a region under subparagraph  
21          (B)(ii) shall achieve the maximum level of en-  
22          ergy savings that are technically feasible and  
23          economically justified within that region.

24          “(D) ECONOMIC JUSTIFIABILITY STUDY.—

1           “(i) IN GENERAL.—As a preliminary  
2 step in determining the economic justifi-  
3 ability of establishing a regional standard  
4 under subparagraph (B)(ii), the Secretary  
5 shall conduct a study involving stake-  
6 holders, including—

7                   “(I) a representative from the  
8 National Institute of Standards and  
9 Technology;

10                   “(II) representatives of non-  
11 governmental advocacy organizations;

12                   “(III) representatives of product  
13 manufacturers, distributors, and in-  
14 stallers;

15                   “(IV) representatives of the gas  
16 and electric utility industries; and

17                   “(V) such other individuals as  
18 the Secretary may designate.

19           “(ii) REQUIREMENTS.—The study  
20 under this subparagraph—

21                   “(I) shall determine the potential  
22 benefits and consequences of pre-  
23 scribing regional standards for heat-  
24 ing and cooling products; and



1                   “(II) may, if favorable to the  
2                   standards, constitute the evidence of  
3                   economic justifiability required under  
4                   this Act.

5                   “(E) REGIONAL BOUNDARIES.—Regional  
6                   boundaries used in establishing regional stand-  
7                   ards under subparagraph (B)(ii) shall—

8                   “(i) conform to State borders; and

9                   “(ii) include only contiguous States  
10                  (other than Alaska and Hawaii), except  
11                  that on the request of a State, the Sec-  
12                  retary may divide the State to include a  
13                  part of the State in each of 2 regions.

14                  “(2) NONCOMPLYING PRODUCTS.—If the Sec-  
15                  retary establishes standards for a region, it shall be  
16                  unlawful under section 332 to offer for sale at retail,  
17                  sell at retail, or install within the region products  
18                  that do not comply with the applicable standards.

19                  “(3) DISTRIBUTION IN COMMERCE.—

20                  “(A) IN GENERAL.—Except as provided in  
21                  subparagraph (B), no product manufactured in  
22                  a manner that complies with a regional stand-  
23                  ard established under paragraph (1) shall be  
24                  distributed in commerce without a prominent  
25                  label affixed to the product that includes—

1           “(i) at the top of the label, in print of  
2           not less than 14-point type, the following  
3           statement: ‘It is a violation of Federal law  
4           for this product to be installed in any  
5           State outside the region shaded on the  
6           map printed on this label.’;

7           “(ii) below the notice described in  
8           clause (i), an image of a map of the United  
9           States with clearly defined State bound-  
10          aries and names, and with all States in  
11          which the product meets or exceeds the  
12          standard established pursuant to para-  
13          graph (1) shaded in a color or a manner  
14          as to be easily visible without obscuring the  
15          State boundaries and names; and

16          “(iii) below the image of the map re-  
17          quired under clause (ii), the following  
18          statement: ‘It is a violation of Federal law  
19          for this label to be removed, except by the  
20          owner and legal resident of any single-fam-  
21          ily home in which this product is in-  
22          stalled.’.

23          “(B) ENERGY-EFFICIENCY RATING.—A  
24          product manufactured that meets or exceeds all  
25          regional standards established under this para-

1 graph shall bear a prominent label affixed to  
2 the product that includes at the top of the label,  
3 in print of not less than 14-point type, the fol-  
4 lowing statement: ‘This product has achieved an  
5 energy-efficiency rating under Federal law al-  
6 lowing its installation in any State.’

7 “(4) RECORDKEEPING.—A manufacturer of  
8 space heating or air conditioning equipment subject  
9 to regional standards established under this sub-  
10 section shall—

11 “(A) obtain and retain records on the in-  
12 tended installation locations of the equipment  
13 sold; and

14 “(B) make such records available to the  
15 Secretary on request.”

16 (b) CONFORMING AMENDMENTS.—Section 327 of the  
17 Energy Policy and Conservation Act (42 U.S.C. 6297) is  
18 amended—

19 (1) in subsection (b)—

20 (A) in paragraph (2), by striking “sub-  
21 section (e)” and inserting “subsection (f)”; and

22 (B) in paragraph (3)—

23 (i) by striking “subsection (f)(1)” and  
24 inserting “subsection (g)(1)”; and

1 (ii) by striking “subsection (f)(2)”  
 2 and inserting “subsection (g)(2)”; and  
 3 (2) in subsection (c)(3), by striking “subsection  
 4 (f)(3)” and inserting “subsection (g)(3)”.

## 5 **Subtitle B—Building Efficiency**

### 6 **SEC. 5201. UPDATING STATE BUILDING ENERGY EFFI-** 7 **CIENCY CODES.**

8 Section 304 of the Energy Conservation and Produc-  
 9 tion Act (42 U.S.C. 6833) is amended to read as follows:

### 10 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-** 11 **CIENCY CODES.**

12 “(a) UPDATES.—

13 “(1) IN GENERAL.—The Secretary shall sup-  
 14 port updating the national model building energy  
 15 codes and standards not later than 3 years after the  
 16 date of enactment of the Lieberman-Warner Climate  
 17 Security Act of 2008, and not less frequently every  
 18 3 years thereafter, to achieve overall energy savings,  
 19 as compared to the IECC (2006) for residential  
 20 buildings and ASHRAE Standard 90.1 (2004) for  
 21 commercial buildings, of at least—

22 “(A) 30 percent, with respect to each edi-  
 23 tion of a model code or standard published dur-  
 24 ing the period beginning on January 1, 2010,  
 25 and ending on December 31, 2019;

1           “(B) 50 percent, with respect to each edi-  
2           tion of a model code or standard published on  
3           or after January 1, 2020; and

4           “(C) targets for intermediate and subse-  
5           quent years, to be established by the Secretary  
6           not less than 3 years before the beginning on  
7           each target year, in coordination with IECC  
8           and ASHRAE Standard 90.1 cycles, at the  
9           maximum level of energy efficiency that is tech-  
10          nologically feasible and lifecycle cost-effective.

11          “(2) REVISIONS TO IECC AND ASHRAE.—

12           “(A) IN GENERAL.—If the IECC or  
13           ASHRAE Standard 90.1 regarding building en-  
14           ergy use is revised, not later than 1 year after  
15           the date of the revision, the Secretary shall de-  
16           termine whether the revision will—

17                   “(i) improve energy efficiency in  
18                   buildings; and

19                   “(ii) meet the energy savings goals de-  
20                   scribed in paragraph (1).

21          “(B) MODIFICATIONS.—

22           “(i) IN GENERAL.—If the Secretary  
23           makes a determination under subpara-  
24           graph (A)(ii) that a code or standard does  
25           not meet the energy savings goals estab-

1 lished under paragraph (1) or if a national  
2 model code or standard is not updated for  
3 more than 3 years, not later than 1 year  
4 after the determination or the expiration of  
5 the 3-year period, the Secretary shall es-  
6 tablish a modified code or standard that  
7 meets the energy savings goals.

8 “(ii) REQUIREMENTS.—

9 “(I) ENERGY SAVINGS.—A modi-  
10 fication to a code or standard under  
11 clause (i) shall—

12 “(aa) achieve the maximum  
13 level of energy savings that is  
14 technically feasible and lifecycle  
15 cost-effective;

16 “(bb) be achieved through  
17 an amendment or supplement to  
18 the most recent revision of the  
19 IECC or ASHRAE Standard  
20 90.1 and taking into consider-  
21 ation other appropriate model  
22 codes and standards; and

23 “(cc) incorporate available  
24 appliances, technologies, and con-  
25 struction practices.

1                   “(II) TREATMENT AS BASE-  
2                   LINE.—A modification to a code or  
3                   standard under clause (i) shall serve  
4                   as the baseline for the next applicable  
5                   determination of the Secretary under  
6                   subparagraph (A)(i).

7                   “(C) PUBLIC PARTICIPATION.—The Sec-  
8                   retary shall—

9                   “(i) publish in the Federal Register a  
10                  notice relating to each goal, determination,  
11                  and modification under this paragraph;  
12                  and

13                  “(ii) provide an opportunity for public  
14                  comment regarding the goals, determina-  
15                  tions, and modifications.

16                  “(b) STATE CERTIFICATION OF BUILDING ENERGY  
17                  CODE UPDATES.—

18                  “(1) GENERAL CERTIFICATION.—

19                  “(A) IN GENERAL.—Not later than 2 years  
20                  after the date of enactment of the Lieberman-  
21                  Warner Climate Security Act of 2008, each  
22                  State shall certify to the Secretary that the  
23                  State has reviewed and updated the provisions  
24                  of the residential and commercial building codes  
25                  of the State regarding energy efficiency.

1           “(B) ENERGY SAVINGS.—A certification  
2 under subparagraph (A) shall include a dem-  
3 onstration that the applicable provisions of the  
4 State code meet or exceed, as applicable—

5                   “(i)(I) the IECC (2006) for residen-  
6 tial buildings; or

7                   “(II) the ASHRAE Standard 90.1  
8 (2004) for commercial buildings; or

9                   “(ii) the quantity of energy savings  
10 represented by the provisions referred to in  
11 clause (i).

12           “(2) REVISION OF CODES AND STANDARDS.—

13                   “(A) IN GENERAL.—If the Secretary  
14 makes an affirmative determination under sub-  
15 section (a)(2)(A)(i) or establishes a modified  
16 code or standard under subsection (a)(2)(B),  
17 not later than 2 years after the determination  
18 or proposal, each State shall certify that the  
19 State has reviewed and updated the provisions  
20 of the residential and commercial building codes  
21 of the State regarding energy efficiency.

22                   “(B) ENERGY SAVINGS.—A certification  
23 under subparagraph (A) shall include a dem-  
24 onstration that the applicable provisions of the  
25 State code meet or exceed—



1 “(i) the modified code or standard; or

2 “(ii) the quantity of energy savings  
3 represented by the modified code or stand-  
4 ard.

5 “(C) FAILURE TO DETERMINE.—If the  
6 Secretary fails to make a determination under  
7 subsection (a)(2)(A)(i) by the date specified in  
8 subsection (a)(2), or if the Secretary makes a  
9 negative determination, not later than 2 years  
10 after the specified date or the date of the deter-  
11 mination, each State shall certify that the State  
12 has—

13 “(i) reviewed the revised code or  
14 standard; and

15 “(ii) updated the provisions of the res-  
16 idential and commercial building codes of  
17 the State as necessary to meet or exceed,  
18 as applicable—

19 “(I) any provisions of a national  
20 code or standard determined to im-  
21 prove energy efficiency in buildings; or

22 “(II) energy savings achieved by  
23 those provisions through other means.

24 “(c) ACHIEVEMENT OF COMPLIANCE BY STATES.—

1           “(1) IN GENERAL.—Not later than 3 years  
2 after the date on which a State makes a certification  
3 under subsection (b), the State shall certify to the  
4 Secretary that the State has achieved compliance  
5 with the building energy code that is the subject of  
6 the certification.

7           “(2) RATE OF COMPLIANCE.—The certification  
8 shall include documentation of the rate of compli-  
9 ance based on independent inspections of a random  
10 sample of the new and renovated buildings covered  
11 by the State code during the preceding calendar  
12 year.

13           “(3) COMPLIANCE.—A State shall be considered  
14 to achieve compliance for purposes of paragraph (1)  
15 if—

16                   “(A) at least 90 percent of new and ren-  
17 ovated buildings covered by the State code dur-  
18 ing the preceding calendar year substantially  
19 meet all the requirements of the code; or

20                   “(B) the estimated excess energy use of  
21 new and renovated buildings that did not meet  
22 the requirements of the State code during the  
23 preceding calendar year, as compared to a base-  
24 line of comparable buildings that meet the re-  
25 quirements of the code, is not more than 10

1           percent of the estimated energy use of all new  
2           and renovated buildings covered by the State  
3           code during the preceding calendar year.

4           “(d) FAILURE TO CERTIFY.—

5           “(1) EXTENSION OF DEADLINES.—The Sec-  
6           retary shall extend a deadline for certification by a  
7           State under subsection (b) or (c) for not more than  
8           1 additional year, if the State demonstrates to the  
9           satisfaction of the Secretary that the State has  
10          made—

11                   “(A) a good faith effort to comply with the  
12                   certification requirement; and

13                   “(B) significant progress with respect to  
14                   the compliance.

15          “(2) NONCOMPLIANCE BY STATE.—

16                   “(A) IN GENERAL.—A State that fails to  
17                   submit a certification required under subsection  
18                   (b) or (c), and to which an extension is not pro-  
19                   vided under paragraph (1), shall be considered  
20                   to be out of compliance with this section.

21                   “(B) EFFECT ON LOCAL GOVERNMENTS.—

22                   A local government of a State that is out of  
23                   compliance with this section may be considered  
24                   to be in compliance with this section if the local

1 government meets each applicable certification  
2 requirement of this section.

3 “(e) TECHNICAL ASSISTANCE.—

4 “(1) IN GENERAL.—The Secretary shall provide  
5 technical assistance (including building energy anal-  
6 ysis and design tools, building demonstrations, and  
7 design assistance and training) to ensure that na-  
8 tional model building energy codes and standards  
9 meet the goals described in subsection (a)(1).

10 “(2) ASSISTANCE TO STATES.—The Secretary  
11 shall provide technical assistance to States—

12 “(A) to implement this section, including  
13 procedures for States to demonstrate that the  
14 codes of the States achieve equivalent or great-  
15 er energy savings than the national model codes  
16 and standards;

17 “(B) to improve and implement State resi-  
18 dential and commercial building energy effi-  
19 ciency codes; and

20 “(C) to otherwise promote the design and  
21 construction of energy-efficient buildings.

22 “(f) INCENTIVE FUNDING.—

23 “(1) IN GENERAL.—The Secretary shall provide  
24 incentive funding to States—

25 “(A) to implement this section; and

1           “(B) to improve and implement State resi-  
2           dential and commercial building energy effi-  
3           ciency codes, including increasing and verifying  
4           compliance with the codes.

5           “(2) AMOUNT.—In determining whether, and in  
6           what amount, to provide incentive funding under  
7           this subsection, the Secretary shall take into consid-  
8           eration actions proposed by the State—

9                   “(A) to implement this section;

10                   “(B) to implement and improve residential  
11           and commercial building energy efficiency  
12           codes; and

13                   “(C) to promote building energy efficiency  
14           through use of the codes.

15           “(3) ADDITIONAL FUNDING.—The Secretary  
16           shall provide additional funding under this sub-  
17           section for implementation of a plan to demonstrate  
18           a rate of compliance with applicable residential and  
19           commercial building energy efficiency codes at a rate  
20           of not less than 90 percent, based on energy per-  
21           formance—

22                   “(A) to a State that has adopted and is  
23           implementing, on a statewide basis—

24                           “(i) a residential building energy effi-  
25           ciency code that meets or exceeds the re-

1 requirements of the IECC (2006) (or a suc-  
2 cessor code that is the subject of an af-  
3 firmative determination by the Secretary  
4 under subsection (a)(2)(A)(i)); and

5 “(ii) a commercial building energy ef-  
6 ficiency code that meets or exceeds the re-  
7 quirements of the ASHRAE Standard 90.1  
8 (2004) (or a successor standard that is the  
9 subject of an affirmative determination by  
10 the Secretary under subsection  
11 (a)(2)(A)(i)); or

12 “(B) in the case of a State in which no  
13 statewide energy code exists for residential  
14 buildings or commercial buildings, or in which  
15 the State code fails to comply with subpara-  
16 graph (A), to a local government that has  
17 adopted and is implementing residential and  
18 commercial building energy efficiency codes, as  
19 described in subparagraph (A).

20 “(4) TRAINING.—Of the amounts made avail-  
21 able to carry out this subsection, the Secretary may  
22 use not more than \$500,000 for each State to train  
23 State and local officials to implement State or local  
24 energy codes in accordance with a plan described in  
25 paragraph (3).”.

1 **SEC. 5202. CONFORMING AMENDMENT.**

2 Section 303 of the Energy Conservation and Produc-  
3 tion Act (42 U.S.C. 6832) is amended by adding at the  
4 end the following new paragraph:

5 “(17) IECC.—The term ‘IECC’ means the  
6 International Energy Conservation Code.”.

7 **TITLE VI—GLOBAL EFFORT TO**  
8 **REDUCE GREENHOUSE GAS**  
9 **EMISSIONS**

10 **SEC. 6001. DEFINITIONS.**

11 In this title:

12 (1) **BASELINE EMISSION LEVEL.**—The term  
13 “baseline emission level” means, as determined by  
14 the Administrator, the total average annual green-  
15 house gas emissions attributed to a category of cov-  
16 ered goods of a foreign country during the period be-  
17 ginning on January 1, 2012, and ending on Decem-  
18 ber 31, 2014, based on—

19 (A) relevant data available for that period;  
20 and

21 (B) to the extent necessary with respect to  
22 a specific category of covered goods, economic  
23 and engineering models and best available infor-  
24 mation on technology performance levels for the  
25 manufacture of that category of covered goods.

1           (2) COMPARABLE ACTION.—The term “com-  
2           parable action” means any greenhouse gas regu-  
3           latory programs, requirements, and other measures  
4           adopted by a foreign country that, in combination,  
5           are comparable in effect to actions carried out by  
6           the United States to limit greenhouse gas emissions  
7           pursuant to this Act, as determined by the Presi-  
8           dent, taking into consideration the level of economic  
9           development of the foreign country.

10           (3) COMPLIANCE YEAR.—The term “compliance  
11           year” means each calendar year for which the re-  
12           quirements of this title apply to a category of cov-  
13           ered goods of a covered foreign country that is im-  
14           ported into the United States.

15           (4) COVERED FOREIGN COUNTRY.—The term  
16           “covered foreign country” means a foreign country  
17           that is included on the covered list prepared under  
18           section 6006(b)(3).

19           (5) COVERED GOOD.—The term “covered good”  
20           means a good that (as identified by the Adminis-  
21           trator by rule)—

22                   (A) is a primary product;

23                   (B) generates, in the course of the manu-  
24           facture of the good, a substantial quantity of



1 direct greenhouse gas emissions and indirect  
2 greenhouse gas emissions; and

3 (C) is closely related to a good the cost of  
4 production of which in the United States is af-  
5 fected by a requirement of this Act.

6 (6) FOREIGN COUNTRY.—The term “foreign  
7 country” means a member of, or observer govern-  
8 ment to, the World Trade Organization (WTO),  
9 other than the United States.

10 (7) INDIRECT GREENHOUSE GAS EMISSIONS.—  
11 The term “indirect greenhouse gas emissions”  
12 means any emissions of a greenhouse gas resulting  
13 from the generation of electricity that is consumed  
14 during the manufacture of a good.

15 (8) INTERNATIONAL AGREEMENT.—The term  
16 “international agreement” means any international  
17 agreement to which the United States is a party, in-  
18 cluding the Marrakesh agreement establishing the  
19 World Trade Organization, done at Marrakesh on  
20 April 15, 1994.

21 (9) INTERNATIONAL RESERVE ALLOWANCE.—  
22 The term “international reserve allowance” means  
23 an allowance (denominated in units of metric tons of  
24 carbon dioxide equivalent) that is—

1 (A) purchased from a special reserve of al-  
2 lowances pursuant to section 6006(a)(2); and

3 (B) used for purposes of meeting the re-  
4 quirements of section 6006.

5 (10) PRIMARY PRODUCT.—The term “primary  
6 product” means—

7 (A) iron, steel, aluminum, cement, bulk  
8 glass, or paper; or

9 (B) any other manufactured product  
10 that—

11 (i) is sold in bulk for purposes of fur-  
12 ther manufacture; and

13 (ii) generates, in the course of the  
14 manufacture of the product, direct green-  
15 house gas emissions and indirect green-  
16 house gas emissions that are comparable  
17 (on an emissions-per-dollar basis) to emis-  
18 sions generated in the manufacture of  
19 products by covered facilities in the indus-  
20 trial sector.

21 **SEC. 6002. PURPOSES.**

22 The purposes of this title are—

23 (1) to promote a strong global effort to signifi-  
24 cantly reduce greenhouse gas emissions;

1           (2) to ensure, to the maximum extent prac-  
2           ticable, that greenhouse gas emissions occurring out-  
3           side the United States do not undermine the objec-  
4           tives of the United States in addressing global cli-  
5           mate change; and

6           (3) to encourage effective international action  
7           to achieve those objectives through—

8                   (A) agreements negotiated between the  
9                   United States and foreign countries; and

10                   (B) measures carried out by the United  
11                   States that comply with applicable international  
12                   agreements.

13 **SEC. 6003. INTERNATIONAL NEGOTIATIONS.**

14           (a) **FINDING.**—Congress finds that the purposes de-  
15           scribed in section 6002 can be most effectively addressed  
16           and achieved through agreements negotiated between the  
17           United States and foreign countries.

18           (b) **NEGOTIATING OBJECTIVE.**—

19                   (1) **STATEMENT OF POLICY.**—It is the policy of  
20                   the United States to work proactively under the  
21                   United Nations Framework Convention on Climate  
22                   Change and, in other appropriate forums, to estab-  
23                   lish binding agreements committing all major green-  
24                   house gas-emitting nations to contribute equitably to  
25                   the reduction of global greenhouse gas emissions.

1           (2) INTENT OF CONGRESS REGARDING OBJEC-  
2           TIVE.—To the extent that the agreements described  
3           in subsection (a) involve measures that will affect  
4           international trade in any good or service, it is the  
5           intent of Congress that the negotiating objective of  
6           the United States shall be to focus multilateral and  
7           bilateral international agreements on the reduction  
8           of greenhouse gas emissions to advance achievement  
9           of the purposes described in section 6002.

10 **SEC. 6004. INTERAGENCY REVIEW.**

11           (a) INTERAGENCY GROUP.—

12           (1) ESTABLISHMENT.—The President shall es-  
13           tablish an interagency group to carry out this sec-  
14           tion.

15           (2) CHAIRPERSON.—The chairperson of the  
16           interagency group established under paragraph (1)  
17           shall be the Secretary of State.

18           (3) REQUIREMENT.—The Administrator shall  
19           be a member of the interagency group.

20           (b) DETERMINATIONS.—

21           (1) IN GENERAL.—Subject to paragraph (2),  
22           the interagency group established under subsection  
23           (a)(1) shall determine whether, and the extent to  
24           which, each foreign country has taken comparable

1 action to limit the greenhouse gas emissions of the  
2 foreign country.

3 (2) EXEMPTION.—The interagency group may  
4 exempt from a determination under paragraph (1)  
5 any foreign country on the excluded list under sec-  
6 tion 6006(b)(2).

7 (c) REPORT TO PRESIDENT.—Not later than Janu-  
8 ary 1, 2018, and annually thereafter, the interagency  
9 group shall submit to the President a report describing  
10 the determinations of the interagency group under sub-  
11 section (b).

12 **SEC. 6005. PRESIDENTIAL DETERMINATIONS.**

13 (a) IN GENERAL.—Not later than January 1, 2019,  
14 and annually thereafter, the President shall determine  
15 whether each foreign country that is subject to interagency  
16 review under section 6004(b) has taken comparable action  
17 to limit the greenhouse gas emissions of the foreign coun-  
18 try, taking into consideration—

19 (1) the baseline emission levels of the foreign  
20 country; and

21 (2) applicable reports submitted under section  
22 6004(e).

23 (b) REPORTS.—The President shall—



1 market price of allowances established under  
2 section 1201 for the compliance year.

3 (B) MAXIMUM PRICE.—The price for an  
4 international reserve allowance under subpara-  
5 graph (A) shall not exceed the clearing price for  
6 current compliance year allowances established  
7 at the most recent auction of allowances by the  
8 Corporation.

9 (4) SERIAL NUMBER.—The Administrator shall  
10 assign a unique serial number to each international  
11 reserve allowance issued under this subsection.

12 (5) TRADING SYSTEM.—The Administrator may  
13 establish, by rule, a system for the sale, exchange,  
14 purchase, transfer, and banking of international re-  
15 serve allowances.

16 (6) REGULATED ENTITIES.—International re-  
17 serve allowances may not be submitted by regulated  
18 entities to comply with the allowance submission re-  
19 quirements of section 1202.

20 (7) PROCEEDS.—All proceeds from the sale of  
21 international reserve allowances under this sub-  
22 section shall be allocated to a program that the Ad-  
23 ministrator, in coordination with the Secretary of  
24 State, shall establish to mitigate the negative im-

1 pacts of global climate change on disadvantaged  
2 communities in other countries.

3 (b) FOREIGN COUNTRY LISTS.—

4 (1) IN GENERAL.—Not later than January 1,  
5 2020, and annually thereafter, the President shall  
6 develop and publish in the Federal Register 2 lists  
7 of foreign countries, in accordance with this sub-  
8 section.

9 (2) EXCLUDED LIST.—

10 (A) IN GENERAL.—The President shall  
11 identify and publish in a list, to be known as  
12 the “excluded list”—

13 (i) each foreign country determined by  
14 the President under section 6005(a) to  
15 have taken action comparable to that taken  
16 by the United States to limit the green-  
17 house gas emissions of the foreign country;  
18 and

19 (ii) each foreign country the share of  
20 total global greenhouse gas emissions of  
21 which is below the de minimis percentage  
22 described in subparagraph (B).

23 (B) DE MINIMIS PERCENTAGE.—The de  
24 minimis percentage referred to in subparagraph  
25 (A) is a percentage of total global greenhouse



1 gas emissions of not more than 0.5, as deter-  
2 mined by the President, for the most recent cal-  
3 endar year for which emissions and other rel-  
4 evant data is available, taking into consider-  
5 ation, as necessary, the annual average defor-  
6 estation rate during a representative period for  
7 a foreign country that is a developing country.

8 (3) COVERED LIST.—

9 (A) IN GENERAL.—The President shall  
10 identify and publish in a list, to be known as  
11 the “covered list”, each foreign country the cov-  
12 ered goods of which are subject to the require-  
13 ments of this section.

14 (B) REQUIREMENT.—The covered list shall  
15 include each foreign country that is not in-  
16 cluded on the excluded list under paragraph  
17 (2).

18 (c) WRITTEN DECLARATIONS.—

19 (1) IN GENERAL.—Effective beginning January  
20 1, 2020, a United States importer of any covered  
21 good shall, as a condition of importation or with-  
22 drawal for consumption from a warehouse of the  
23 covered good, submit to the Administrator and the  
24 appropriate office of the U.S. Customs and Border

1 Protection a written declaration with respect to each  
2 such importation or withdrawal.

3 (2) CONTENTS.—A written declaration under  
4 paragraph (1) shall contain a statement that—

5 (A) the applicable covered good is accom-  
6 panied by a sufficient number of international  
7 reserve allowances, as determined under sub-  
8 section (d); or

9 (B) the covered good is from a foreign  
10 country on the excluded list under subsection  
11 (b)(2).

12 (3) INCLUSION.—A written declaration de-  
13 scribed in paragraph (2)(A) shall include the unique  
14 serial number of each emission allowance associated  
15 with the importation of the applicable covered good.

16 (4) FAILURE TO DECLARE.—

17 (A) IN GENERAL.—Except as provided in  
18 subparagraph (B), an imported covered good  
19 that is not accompanied by a written declara-  
20 tion under this subsection shall not be per-  
21 mitted to enter the customs territory of the  
22 United States.

23 (B) EXCEPTION FOR CERTAIN IMPORTS.—  
24 Subparagraph (A) shall not apply to a covered

1 good of a foreign country if the President deter-  
2 mines that—

3 (i) the foreign country has taken com-  
4 parable action to limit the greenhouse gas  
5 emissions of the foreign country, in accord-  
6 ance with section 6005;

7 (ii) the United Nations has identified  
8 the foreign country as among the least-de-  
9 veloped of developing countries; or

10 (iii) the foreign country is on the ex-  
11 cluded list under subsection (b)(2).

12 (5) CORRECTED DECLARATION.—

13 (A) IN GENERAL.—If, after making a dec-  
14 laration required under this subsection, an im-  
15 porter has reason to believe that the declaration  
16 contains information that is not correct, the im-  
17 porter shall provide a corrected declaration by  
18 not later than 30 days after the date of dis-  
19 covery of the error, in accordance with subpara-  
20 graph (B).

21 (B) METHOD.—A corrected declaration  
22 under subparagraph (A) shall be in the form of  
23 a letter or other written statement to the Ad-  
24 ministrator and the office of the U.S. Customs

1 and Border Protection to which the original  
2 declaration was submitted.

3 (d) QUANTITY OF ALLOWANCES REQUIRED.—

4 (1) METHODOLOGY.—

5 (A) IN GENERAL.—The Administrator  
6 shall establish, by rule, a method for calculating  
7 the required number of international reserve al-  
8 lowances that a United States importer must  
9 submit, together with a written declaration  
10 under subsection (c), for each category of cov-  
11 ered goods of each covered foreign country.

12 (B) FORMULA.—The Administrator shall  
13 develop a general formula for calculating the  
14 international reserve allowance requirement  
15 that applies, on a per unit basis, to each cov-  
16 ered good of a covered foreign country that is  
17 imported during each compliance year.

18 (2) INITIAL COMPLIANCE YEAR.—

19 (A) IN GENERAL.—Subject to subpara-  
20 graph (B), the methodology under paragraph  
21 (1) shall establish an international reserve al-  
22 lowance requirement (per unit imported into the  
23 United States) for the initial compliance year  
24 for each category of covered goods of each cov-

1           ered foreign country that is equal to the  
2           quotient obtained by dividing—

3                   (i) the excess, if any, of the total  
4                   emissions from the covered foreign country  
5                   that are attributable to the category of  
6                   covered goods produced during the most  
7                   recent year for which data are available,  
8                   over the baseline emission level of the cov-  
9                   ered foreign country for that category; and

10                   (ii) the total quantity of the covered  
11                   good produced in the covered foreign coun-  
12                   try during the most recent calendar year.

13           (B) ADJUSTMENTS.—The Administrator  
14           shall adjust the requirement under subpara-  
15           graph (A)—

16                   (i) in accordance with the ratio that—

17                           (I) the quantity of allowances  
18                           that were allocated at no cost to enti-  
19                           ties within the industry sector manu-  
20                           facturing the covered goods for the  
21                           compliance year during which the cov-  
22                           ered goods were imported into the  
23                           United States; bears to

24                           (II) the greenhouse gas emissions  
25                           of that industry sector; and

1                   (ii) to take into account the level of  
2                   economic development of the covered for-  
3                   eign country in which the covered goods  
4                   were produced.

5                   (3) SUBSEQUENT COMPLIANCE YEARS.—For  
6                   each subsequent compliance year, the Administrator  
7                   shall revise, as appropriate, the international reserve  
8                   allowance requirement applicable to each category of  
9                   imported covered goods of each covered foreign  
10                  country to reflect changes in the factors described in  
11                  paragraph (2)(B).

12                  (4) PUBLICATION.—Not later than 90 days be-  
13                  fore the beginning of each compliance year, the Ad-  
14                  ministrator shall publish in the Federal Register a  
15                  schedule describing the required number of inter-  
16                  national reserve allowances for each category of im-  
17                  ported covered goods of each covered foreign coun-  
18                  try, as calculated under this subsection.

19                  (e) FOREIGN ALLOWANCES AND CREDITS.—

20                   (1) FOREIGN ALLOWANCES.—

21                   (A) IN GENERAL.—A United States im-  
22                   porter may submit, in lieu of an international  
23                   reserve allowance issued under this section, a  
24                   foreign allowance or similar compliance instru-  
25                   ment distributed by a foreign country pursuant

1 to a cap and trade program that represents a  
2 comparable action.

3 (B) COMMENSURATE CAP AND TRADE PRO-  
4 GRAM.—For purposes of subparagraph (A), a  
5 cap and trade program that represents a com-  
6 parable action shall include any greenhouse gas  
7 regulatory program adopted by a covered for-  
8 eign country to limit the greenhouse gas emis-  
9 sions of the covered foreign country, if the  
10 President certifies that the program—

11 (i)(I) places a quantitative limitation  
12 on the total quantity of greenhouse gas  
13 emissions of the covered foreign country  
14 (expressed in terms of tons emitted per  
15 calendar year); and

16 (II) achieves that limitation through  
17 an allowance trading system;

18 (ii) satisfies such criteria as the Presi-  
19 dent may establish for requirements relat-  
20 ing to the enforceability of the cap and  
21 trade program, including requirements for  
22 monitoring, reporting, verification proce-  
23 dures, and allowance tracking; and

24 (iii) is a comparable action.

25 (2) FOREIGN CREDITS.—

1           (A) IN GENERAL.—A United States im-  
2           porter may submit, in lieu of an international  
3           reserve allowance issued under this section, a  
4           foreign credit or a credit for an international  
5           offset project that the Administrator has au-  
6           thorized for use under subtitle E of title II.

7           (B) APPLICATION.—The limitation on the  
8           use of international reserve allowances by regu-  
9           lated entities under subsection (a)(6) shall not  
10          apply to a United States importer for purposes  
11          of this paragraph.

12          (f) RETIREMENT OF ALLOWANCES.—The Adminis-  
13          trator shall retire each international reserve allowance,  
14          foreign allowance, and foreign credit submitted to achieve  
15          compliance with this section.

16          (g) CONSISTENCY WITH INTERNATIONAL AGREE-  
17          MENTS.—The Administrator, in consultation with the Sec-  
18          retary of State, shall adjust the international reserve al-  
19          lowance requirements established under this section (in-  
20          cluding the quantity of international reserve allowances re-  
21          quired for each category of covered goods of a covered for-  
22          eign country) as the Administrator determines to be nec-  
23          essary to ensure that the United States complies with all  
24          applicable international agreements.



1 (h) TERMINATION.—The international reserve allow-  
2 ance requirements of this section shall not apply to a cov-  
3 ered good of a covered foreign country in any case in  
4 which the President makes a determination described in  
5 subsection (b)(2) with respect to the covered goods of that  
6 covered foreign country.

7 (i) FINAL REGULATIONS.—Not later than January 1,  
8 2019, the Administrator shall promulgate such regulations  
9 as the Administrator determines to be necessary to carry  
10 out this section.

11 **SEC. 6007. ADJUSTMENT OF INTERNATIONAL RESERVE AL-**  
12 **LOWANCE REQUIREMENTS.**

13 (a) IN GENERAL.—Not later than January 1, 2023,  
14 and annually thereafter, the President shall prepare and  
15 submit to Congress a report that assesses the effectiveness  
16 of the applicable international reserve allowance require-  
17 ments under section 6006 with respect to the covered  
18 goods of each covered foreign country.

19 (b) INADEQUATE REQUIREMENTS.—If the President  
20 determines that an applicable international reserve allow-  
21 ance requirement is not adequate to achieve the purposes  
22 of this title, the President, simultaneously with the sub-  
23 mission of the report under subsection (a), shall—

24 (1) adjust the requirement; or

1           (2) take such other action as the President de-  
2           termines to be necessary to improve the effectiveness  
3           of the requirement, in accordance with all applicable  
4           international agreements.

5           (c) EFFECTIVE DATE.—An adjustment under sub-  
6           section (b)(1) shall take effect beginning on January 1  
7           of the compliance year immediately following the date on  
8           which the adjustment is made.

9                           **TITLE VII—REVIEWS AND**  
10                           **RECOMMENDATIONS**

11           **SEC. 7001. NATIONAL ACADEMY OF SCIENCES REVIEWS.**

12           (a) IN GENERAL.—Not later than 1 year after the  
13           date of enactment of this Act, the Administrator shall  
14           offer to enter into a contract with the National Academy  
15           of Sciences under which the Academy shall, not later than  
16           January 1, 2012, and every 3 years thereafter, submit to  
17           Congress and the Administrator a report that includes an  
18           analysis of—

19                   (1) the latest scientific information and data  
20                   relevant to global climate change;

21                   (2) the performance of this Act and other poli-  
22                   cies in reducing greenhouse gas emissions and miti-  
23                   gating the adverse impacts of global climate change;

24                   (3) the performance of this Act in ensuring that  
25                   the Land and Water Conservation Fund established

1 under section 2 of the Land and Water Conservation  
2 Fund Act of 1965 (16 U.S.C. 4601–5) receives funds  
3 that are sufficient to carry out the purposes of that  
4 Fund; and

5 (4) the performance of this Act in ensuring that  
6 the Bureau of Land Management and the Forest  
7 Service receive funds that are sufficient to enable  
8 those agencies to suppress wildland fire effectively  
9 and thereby minimize wildfire damage.

10 (b) LATEST SCIENTIFIC INFORMATION.—The anal-  
11 ysis required under subsection (a)(1) shall—

12 (1) address existing reports, including the most  
13 recent assessment report of the Intergovernmental  
14 Panel on Climate Change; and

15 (2) include a description of—

16 (A) trends in and projections for total  
17 United States greenhouse gas emissions;

18 (B) trends in and projections for total  
19 worldwide greenhouse gas emissions;

20 (C) current and projected future atmos-  
21 pheric concentrations of greenhouse gases;

22 (D) current and projected future global av-  
23 erage temperature, including an analysis of  
24 whether an increase of global average tempera-  
25 ture in excess of 3.6 degrees Fahrenheit (2 de-

1           grees Celsius) above the preindustrial average  
2           has occurred or is more likely than not to occur  
3           in the foreseeable future as a result of anthro-  
4           pogenic climate change;

5           (E) current and projected future adverse  
6           impacts of global climate change on human  
7           populations, wildlife, and natural resources; and

8           (F) trends in and projections for the  
9           health of the oceans and ocean ecosystems, in-  
10          cluding predicted changes in ocean acidity, tem-  
11          peratures, the extent of coral reefs, and other  
12          indicators of ocean ecosystem health, resulting  
13          from anthropogenic carbon dioxide and climate  
14          change.

15          (c) PERFORMANCE OF THIS ACT AND EXISTING  
16          TECHNOLOGIES.—The analysis required under subsection  
17          (a)(2) shall include a description of—

18               (1) the extent to which this Act, in concert with  
19               other policies, will prevent a dangerous increase in  
20               global average temperature;

21               (2) the extent to which this Act, in concert with  
22               other policies, will prevent dangerous atmospheric  
23               concentrations of greenhouse gases;

1           (3) the current and future projected deployment  
2 of technologies and practices that reduce or limit  
3 greenhouse gas emissions, including—

4                   (A) technologies for capture and disposal  
5 of greenhouse gases;

6                   (B) efficiency improvement technologies;

7                   (C) zero-greenhouse gas emitting energy  
8 technologies, including solar, wind, geothermal,  
9 and nuclear technologies; and

10                  (D) above- and below-ground biological se-  
11 questration technologies;

12           (4) the extent to which this Act and other poli-  
13 cies are accelerating the development and commer-  
14 cial deployment of technologies and practices that  
15 reduce and limit greenhouse gas emissions;

16           (5) the extent to which the allocations and dis-  
17 tributions of emission allowances and auction pro-  
18 ceeds under this Act are advancing the purposes of  
19 this Act, and whether any of those allocations and  
20 distributions should be modified, including by in-  
21 creasing the percentage of annual Emission Allow-  
22 ance Account being auctioned, to better carry out  
23 the purposes of this Act;

24           (6) whether the motor vehicle fuel and motor  
25 vehicle and nonroad regulations within the scope of

1 Executive Order 13432 (72 Fed. Reg. 27717; relat-  
2 ing to cooperation among agencies in protecting the  
3 environment with respect to greenhouse gas emis-  
4 sions from motor vehicles, nonroad vehicles, and  
5 nonroad engines) have been finalized and imple-  
6 mented by Federal agencies and departments;

7 (7) whether any other transportation-related  
8 programs, including fuel economy standard reform,  
9 greenhouse gas vehicle emissions standards, renew-  
10 able fuel volume mandates, low-carbon fuel stand-  
11 ards, and activities to reduce vehicle miles traveled  
12 have been finalized and implemented by any Federal  
13 agencies or departments;

14 (8) whether any regulation or program de-  
15 scribed in paragraph (12) or (13) is expected to  
16 achieve, as compared to the baseline greenhouse gas  
17 emissions consistent with the reference case con-  
18 tained in the report of the Energy Information Ad-  
19 ministration entitled “Annual Energy Outlook  
20 2006”, at a minimum—

21 (A) at least a 6.2-percent reduction in cu-  
22 mulative greenhouse gas emissions from the  
23 light-duty motor vehicle sector, including light-  
24 duty vehicles and light-duty trucks, during the

1 period beginning on January 1, 2010, and end-  
2 ing on December 31, 2020; or

3 (B) a cumulative reduction of approxi-  
4 mately 1,140,000 metric tons of carbon dioxide  
5 equivalent, measured on a full fuel cycle basis;

6 (9) whether additional measures, including an  
7 increase in the earned income tax credit, a reduction  
8 in payroll taxes, or the implementation of electronic  
9 benefit transfers by State health and human services  
10 agencies to reach low-income individuals who are not  
11 required to file Federal income tax returns, are  
12 needed to help low- and moderate-income individuals  
13 respond to changes in the cost of energy-related  
14 goods and services;

15 (10) the feasibility of expanding the definition  
16 of the term “covered facility” under this Act;

17 (11) the feasibility of expanding the scope of  
18 the compliance obligation established under section  
19 1202(a);

20 (12) the feasibility of reducing the number of  
21 emission allowances comprising the Emission Allow-  
22 ance Account for 1 or more calendar years under  
23 this Act;

1           (13) the feasibility of establishing policies for  
2 reducing greenhouse gas emissions over and above  
3 those policies established by this Act;

4           (14) the feasibility of accelerating the commer-  
5 cial deployment of existing and emerging renewable  
6 energy technologies for electricity generation, from  
7 solar, wind, geothermal energy, ocean energy (in-  
8 cluding tidal, wave, current, and thermal) or bio-  
9 mass (as defined in section 203(b) of the Energy  
10 Policy Act of 2005 (42 U.S.C. 15852(b))), utilizing  
11 a bonus emission allowance program comparable to  
12 the program established under subtitle F of title III;  
13 and

14           (15) the results of a report on products manu-  
15 factured with recycled materials that—

16                   (A) describes the greenhouse gas emission  
17 reductions those products can achieve;

18                   (B) summarizes and assesses the results of  
19 research on manufactured products and scrap  
20 recycling activities; and

21                   (C) evaluates the lifecycle greenhouse gas  
22 emission reduction and other benefits and  
23 issues associated with—

24                           (i) recycling scrap metal (including  
25 end-of-life vehicles), recovered fiber (or



1 paper), scrap electronics, scrap glass, scrap  
2 plastics, scrap rubber, scrap tires, and  
3 scrap textiles with respect to reduction or  
4 avoidance of greenhouse gas to the envi-  
5 ronment;

6 (ii) using recyclable materials in man-  
7 ufactured products;

8 (iii) designing and manufacturing  
9 products that increase recyclable output;

10 (iv) eliminating or reducing the use of  
11 substances and materials in products that  
12 decrease recyclable output; and

13 (v) establishing a standardized system  
14 for lifecycle greenhouse gas emission re-  
15 duction measurement and certification for  
16 the manufactured products and scrap recy-  
17 cling sectors, including the potential op-  
18 tions for the structure and operation of  
19 such a system.

20 **SEC. 7002. ENVIRONMENTAL PROTECTION AGENCY RE-**  
21 **VIEW.**

22 Not later than January 1, 2012, the Administrator  
23 shall submit to Congress a report indicating—

1           (1) the latest scientific information and data  
2 relevant to the health effects of mercury emissions  
3 from coal-fired electric power generating facilities;

4           (2) the state of the technology designed to re-  
5 duce mercury emissions from coal combustion, in-  
6 cluding the efficacy of the technology with respect to  
7 each coal type; and

8           (3) the extent to which the implementation of  
9 this Act is assisting in bringing concentrations of  
10 particulate matter and ozone into line with National  
11 Ambient Air Quality Standards.

12 **SEC. 7003. ENVIRONMENTAL PROTECTION AGENCY REC-**  
13 **COMMENDATIONS.**

14       (a) REVIEW.—Not later than January 1, 2013, and  
15 every 3 years thereafter, the Administrator shall submit  
16 to Congress recommendations for action in response to the  
17 most recent report submitted by the National Academy of  
18 Sciences under section 7001 and the report submitted by  
19 the Administrator under section 7002.

20       (b) CATEGORIES OF ACTION.—The categories of ac-  
21 tion eligible for inclusion in the recommendations sub-  
22 mitted under subsection (a) include proposed legislation  
23 recommending—

24           (1) expansion of the definition of the term “cov-  
25 ered facility” under this Act;

1           (2) expansion of the scope of the compliance ob-  
2           ligation established under section 1202;

3           (3) adjustment of the number of emission allow-  
4           ances comprising the Emission Allowance Account  
5           for 1 or more calendar years under this Act;

6           (4) establishment of policies for reducing green-  
7           house gas emissions over and above those policies es-  
8           tablished under this Act;

9           (5) establishment of policies for reducing na-  
10          tionwide emissions into the atmosphere of sulfur di-  
11          oxide, nitrogen oxides, and mercury in excess of the  
12          reductions resulting from the implementation of this  
13          Act; and

14          (6) establishment of a program, similar to the  
15          program established under subtitle F of title III, for  
16          distributing bonus emission allowances in order to  
17          accelerate the commercial deployment of existing  
18          and emerging renewable energy technologies for elec-  
19          tricity generation.

20          (c) CONSISTENCY WITH REVIEWS.—The Adminis-  
21          trator shall include with each submission of recommenda-  
22          tions under subsection (a) an explanation of any inconsis-  
23          tencies between the recommendations and the reviews sub-  
24          mitted by the National Academy of Sciences under section

1 7001 and the report submitted by the Administrator  
2 under section 7002.

3 (d) SAVINGS CLAUSE.—Nothing in this title limits,  
4 procedurally affects, or otherwise restricts the authority  
5 of the Administrator, a State, or any person to use au-  
6 thorities under this Act or any other law to adopt or en-  
7 force any rule.

8 **SEC. 7004. PRESIDENTIAL RECOMMENDATIONS.**

9 (a) ESTABLISHMENT OF THE INTERAGENCY CLI-  
10 MATE CHANGE TASK FORCE.—Not later than January 1,  
11 2019, the President shall establish an Interagency Climate  
12 Change Task Force.

13 (b) COMPOSITION.—The members of the Interagency  
14 Climate Change Task Force shall be—

- 15 (1) the Administrator;  
16 (2) the Secretary of Energy;  
17 (3) the Secretary of the Treasury;  
18 (4) the Secretary of Commerce; and  
19 (5) such other Cabinet Secretaries as the Presi-  
20 dent may name to the membership of the Task  
21 Force.

22 (c) CHAIRMAN.—The Administrator shall act as  
23 Chairman of the Interagency Climate Change Task Force.

24 (d) REPORT TO PRESIDENT.—

1           (1) IN GENERAL.—Not later than April 1,  
2           2019, the Task Force shall make public and submit  
3           to the President a consensus report making rec-  
4           ommendations, including specific legislation for the  
5           President to recommend to Congress.

6           (2) BASIS.—The report shall be based on the  
7           third set of recommendations submitted by the Ad-  
8           ministrator to Congress under section 7003.

9           (3) INCLUSIONS.—The Task Force shall include  
10          with the consensus report an explanation of any in-  
11          consistencies between the consensus report and the  
12          third set of recommendations submitted by the Ad-  
13          ministrator to Congress under section 7003.

14          (e) PRESIDENTIAL RECOMMENDATION TO CON-  
15          GRESS.—Not later than July 1, 2020, the President shall  
16          submit to Congress the text of a proposed Act based on  
17          the consensus report submitted to the President under  
18          subsection (d).

19   **SEC. 7005. ADAPTATION ASSESSMENTS AND PLAN.**

20          (a) REGIONAL ESTIMATES.—

21                  (1) ESTIMATES.—

22                          (A) IN GENERAL.—The Administrator, in  
23                          consultation with the officials described in para-  
24                          graph (2) and relevant State agencies, shall  
25                          conduct 6 regional infrastructure cost assess-

1           ments in various regions of the United States,  
2           and a national cost assessment, to provide esti-  
3           mates of the range of costs that should be an-  
4           ticipated for adaptation to the impacts of cli-  
5           mate change.

6           (B) VARIOUS PROBABILITIES.—The Ad-  
7           ministrators shall develop the estimates under  
8           subparagraph (A) for low, medium, and high  
9           probabilities of climate change and the potential  
10          impacts of climate change.

11          (2) DESCRIPTION OF OFFICIALS.—The officials  
12          referred to in paragraph (1) are—

13               (A) the Secretary of Agriculture;

14               (B) the Secretary of Commerce;

15               (C) the Secretary of Defense;

16               (D) the Secretary of Energy;

17               (E) the Secretary of Health and Human  
18          Services;

19               (F) the Secretary of Homeland Security;

20               (G) the Secretary of Housing and Urban  
21          Development;

22               (H) the Secretary of the Interior;

23               (I) the Secretary of Transportation;

24               (J) the Director of United States Geologi-  
25          cal Survey; and

1           (K) the heads of such other Federal agen-  
2           cies and departments as the Administrator de-  
3           termines to be necessary.

4           (3) SUBMISSION TO CONGRESS.—Not later than  
5           1 year after the date of enactment of this Act, the  
6           Administrator shall submit to Congress a report de-  
7           scribing the results of the assessments conducted  
8           under this subsection.

9           (b) ADAPTATION PLAN.—

10           (1) IN GENERAL.—Not later than 180 days  
11           after the date of enactment of this Act, the Adminis-  
12           trator shall submit to Congress a climate change ad-  
13           aptation plan for the United States, based on—

14           (A) assessments performed by the United  
15           Nations Intergovernmental Panel on Climate  
16           Change in accordance with the Global Change  
17           Research Act of 1990 (15 U.S.C. 2921 et seq.);  
18           and

19           (B) any other assessment prepared by a  
20           Federal, regional, State, or local government  
21           entity that is—

22                   (i) scientific;

23                   (ii) peer-reviewed; or

24                   (iii) subjected to public comment.

1           (2) INCLUSIONS.—The adaptation plan under  
2 paragraph (1) shall include—

3           (A) a prioritized list of vulnerable systems  
4 and regions in the United States;

5           (B) requirements for coordination between  
6 Federal, State, and local governments to ensure  
7 that key public infrastructure, safety, health,  
8 and land use planning and control issues are  
9 addressed;

10          (C) requirements for coordination among  
11 the Federal Government, industry, and commu-  
12 nities;

13          (D) requirements for management of cli-  
14 mate change, including the need for information  
15 derived from inundation prediction systems on  
16 the impacts to coastal communities;

17          (E) an assessment of climate change  
18 science research needs, including probabilistic  
19 assessments as an aid to planning;

20          (F) an assessment of climate change tech-  
21 nology needs; and

22          (G) regional and national cost assessments  
23 for the range of costs that should be anticipated  
24 for adapting to the impacts of climate change.



1           (c) IMPACTS OF CLIMATE CHANGE ON LOW-INCOME  
2 POPULATIONS.—

3           (1) IN GENERAL.—The Administrator shall con-  
4 duct research on the impact of climate change on  
5 low-income populations in all countries, including—

6           (A) an assessment of the adverse impact of  
7 climate change on—

8           (i) low-income populations in the  
9 United States; and

10           (ii) developing countries;

11           (B)(i) an identification of appropriate cli-  
12 mate change adaptation measures and pro-  
13 grams for developing countries and low-income  
14 populations;

15           (ii) an assessment of the impact of the  
16 measures and programs on low-income popu-  
17 lations; and

18           (C) an estimate of the costs of developing  
19 and implementing those climate change adapta-  
20 tion and mitigation programs.

21           (2) REPORT.—Not later than 1 year after the  
22 date of enactment of this Act, the Administrator  
23 shall submit to Congress a report describing the re-  
24 sults of the research conducted under paragraph (1).

1 **SEC. 7006. STUDY BY ADMINISTRATOR OF AVIATION SEC-**  
2 **TOR GREENHOUSE GAS EMISSIONS.**

3 (a) IN GENERAL.—The Administrator shall enter  
4 into an agreement with the National Academy of Sciences  
5 under which the Academy shall conduct a study on green-  
6 house gas emissions associated with the aviation industry,  
7 including—

8 (1) a determination of appropriate data nec-  
9 essary to make determinations of emission inven-  
10 tories, considering fuel use, airport operations,  
11 ground equipment, and all other sources of emis-  
12 sions in the aviation industry;

13 (2) an estimate of projected industry emissions  
14 for the following 5-year, 20-year, and 50-year peri-  
15 ods;

16 (3) based on existing literature, research and  
17 surveys to determine the existing best practices for  
18 emission reduction in the aviation sector;

19 (4) recommendations on areas of focus for addi-  
20 tional research for technologies and operations with  
21 the highest potential to reduce emissions; and

22 (5) recommendations of actions that the Fed-  
23 eral Government could take to encourage or require  
24 additional emissions reductions.

25 (b) CONSULTATION.—In developing the parameters  
26 of the study under this section, the Administrator shall

1 conduct the study under this section in consultation  
2 with—

3 (1) the Secretary of Transportation, acting  
4 through the Administrator of the Federal Aviation  
5 Administration; and

6 (2) other appropriate Federal agencies and de-  
7 partments.

8 **TITLE VIII—FRAMEWORK FOR**  
9 **GEOLOGICAL SEQUESTRATION OF CARBON DIOXIDE**  
10

11 **SEC. 8001. NATIONAL DRINKING WATER REGULATIONS.**

12 (a) IN GENERAL.—Section 1421 of the Safe Drink-  
13 ing Water Act (42 U.S.C. 300h) is amended—

14 (1) in subsection (b)(1), by striking “subsection  
15 (d)(2)” and inserting “subsection (e)(2)”;

16 (2) by redesignating subsection (d) as sub-  
17 section (e); and

18 (3) by inserting after subsection (c) the fol-  
19 lowing:

20 “(d) CARBON DIOXIDE.—

21 “(1) REGULATIONS.—Not later than 1 year  
22 after the date of enactment of the Lieberman-War-  
23 ner Climate Security Act of 2008, the Administrator  
24 shall promulgate regulations for permitting commer-  
25 cial-scale underground injection of carbon dioxide for

1 purposes of geological sequestration to address cli-  
2 mate change, including provisions—

3 “(A) for monitoring and controlling the  
4 long-term storage of carbon dioxide and avoid-  
5 ing, to the maximum extent practicable, any re-  
6 lease of carbon dioxide into the atmosphere,  
7 and for ensuring protection of underground  
8 sources of drinking water, human health, and  
9 the environment; and

10 “(B) relating to long-term liability associ-  
11 ated with commercial-scale geological sequestra-  
12 tion.

13 “(2) SUBSEQUENT REPORTS.—Not later than 5  
14 years after the date on which regulations are pro-  
15 mulgated pursuant to paragraph (1), and not less  
16 frequently than once every 5 years thereafter, the  
17 Administrator shall submit to Congress a report that  
18 contains an evaluation of the effectiveness of the  
19 regulations, based on current knowledge and experi-  
20 ence, with particular emphasis on any new informa-  
21 tion on potential impacts of commercial-scale geo-  
22 logical sequestration on drinking water, human  
23 health, and the environment.

24 “(3) REVISION.—If the Administrator deter-  
25 mines, based on a report under paragraph (2), that

1 regulations promulgated pursuant to paragraph (1)  
2 require revision, the Administrator shall promulgate  
3 revised regulations not later than 1 year after the  
4 date on which the applicable report is submitted to  
5 Congress under paragraph (2).”.

6 (b) CONFORMING AMENDMENT.—Section 1447(a)(4)  
7 of the Safe Drinking Water Act (42 U.S.C. 300j–6(a)(4))  
8 is amended by striking “section 1421(d)(2)” and inserting  
9 “section 1421(e)(2)”.

10 **SEC. 8002. ASSESSMENT OF GEOLOGICAL STORAGE CAPAC-**  
11 **ITY FOR CARBON DIOXIDE.**

12 (a) DEFINITIONS.—In this section:

13 (1) ASSESSMENT.—The term “assessment”  
14 means the national assessment of capacity for car-  
15 bon dioxide completed under subsection (f).

16 (2) CAPACITY.—The term “capacity” means the  
17 portion of a storage formation that can retain car-  
18 bon dioxide in accordance with the requirements (in-  
19 cluding physical, geological, and economic require-  
20 ments) established under the methodology developed  
21 under subsection (b).

22 (3) ENGINEERED HAZARD.—The term “engi-  
23 neered hazard” includes the location and completion  
24 history of any well that could affect a storage forma-  
25 tion or capacity.

1           (4) RISK.—The term “risk” includes any risk  
2           posed by a geomechanical, geochemical,  
3           hydrogeological, structural, or engineered hazard.

4           (5) SECRETARY.—The term “Secretary” means  
5           the Secretary of the Interior, acting through the Di-  
6           rector of the United States Geological Survey.

7           (6) STORAGE FORMATION.—The term “storage  
8           formation” means a deep saline formation,  
9           unmineable coal seam, oil or gas reservoir, or other  
10          geological formation that is capable of accommo-  
11          dating a volume of industrial carbon dioxide.

12          (b) METHODOLOGY.—Not later than 1 year after the  
13          date of enactment of this Act, the Secretary shall develop  
14          a methodology for conducting an assessment under sub-  
15          section (f), taking into consideration—

16                (1) the geographical extent of all potential stor-  
17                age formations in all States;

18                (2) the capacity of the potential storage forma-  
19                tions;

20                (3) the injectivity of the potential storage for-  
21                mations;

22                (4) an estimate of potential volumes of oil and  
23                gas recoverable by injection and storage of industrial  
24                carbon dioxide in potential storage formations;

1           (5) the risk associated with the potential stor-  
2           age formations; and

3           (6) the work performed to develop the Carbon  
4           Sequestration Atlas of the United States and Can-  
5           ada completed by the Department of Energy in April  
6           2006.

7           (c) COORDINATION.—

8           (1) FEDERAL COORDINATION.—

9           (A) CONSULTATION.—The Secretary shall  
10          consult with the Secretary of Energy and the  
11          Administrator regarding data sharing and the  
12          format, development of methodology, and con-  
13          tent of the assessment to ensure the maximum  
14          usefulness and success of the assessment.

15          (B) COOPERATION.—The Secretary of En-  
16          ergy and the Administrator shall cooperate with  
17          the Secretary to ensure, to the maximum extent  
18          practicable, the usefulness and success of the  
19          assessment.

20          (2) STATE COORDINATION.—The Secretary  
21          shall consult with State geological surveys and other  
22          relevant entities to ensure, to the maximum extent  
23          practicable, the usefulness and success of the assess-  
24          ment.

1 (d) EXTERNAL REVIEW AND PUBLICATION.—On  
2 completion of the methodology under subsection (b), the  
3 Secretary shall—

4 (1) publish the methodology and solicit com-  
5 ments from the public and the heads of affected  
6 Federal and State agencies;

7 (2) establish a panel of individuals with exper-  
8 tise in the matters described in paragraphs (1)  
9 through (5) of subsection (b) composed, as appro-  
10 priate, of representatives of Federal agencies, insti-  
11 tutions of higher education, nongovernmental organi-  
12 zations, State organizations, industry, and inter-  
13 national geosciences organizations to review the  
14 methodology and comments received under para-  
15 graph (1); and

16 (3) on completion of the review under para-  
17 graph (2), publish in the Federal Register the re-  
18 vised final methodology.

19 (e) PERIODIC UPDATES.—The methodology devel-  
20 oped under this section shall be updated periodically (in-  
21 cluding not less frequently than once every 5 years) to in-  
22 corporate new data as the data becomes available.

23 (f) NATIONAL ASSESSMENT.—

24 (1) IN GENERAL.—Not later than 2 years after  
25 the date of publication of the methodology under



1 subsection (d)(3), the Secretary, in consultation with  
2 the Secretary of Energy and State geological sur-  
3 veys, shall complete a national assessment of the ca-  
4 pacity for carbon dioxide storage in accordance with  
5 the methodology.

6 (2) GEOLOGICAL VERIFICATION.—As part of  
7 the assessment, the Secretary shall carry out a char-  
8 acterization program to supplement the geological  
9 data relevant to determining storage capacity in car-  
10 bon dioxide in geological storage formations, includ-  
11 ing—

12 (A) well log data;

13 (B) core data; and

14 (C) fluid sample data.

15 (3) PARTNERSHIP WITH OTHER DRILLING PRO-  
16 GRAMS.—As part of the drilling characterization  
17 under paragraph (2), the Secretary shall enter into  
18 partnerships, as appropriate, with other entities to  
19 collect and integrate data from other drilling pro-  
20 grams relevant to the storage of carbon dioxide in  
21 geologic formations.

22 (4) INCORPORATION INTO NATCARB.—

23 (A) IN GENERAL.—On completion of the  
24 assessment, the Secretary shall incorporate the

1 results of the assessment using, to the max-  
2 imum extent practicable—

- 3 (i) the NatCarb database; or  
4 (ii) a new database developed by the  
5 Secretary, as the Secretary determines to  
6 be necessary.

7 (B) RANKING.—The database shall include  
8 the data necessary to rank potential storage  
9 sites—

- 10 (i) for capacity and risk;  
11 (ii) across the United States;  
12 (iii) within each State;  
13 (iv) by formation; and  
14 (v) within each basin.

15 (5) REPORT.—Not later than 180 days after  
16 the date on which the assessment is completed, the  
17 Secretary shall submit to the Committee on Energy  
18 and Natural Resources of the Senate and the Com-  
19 mittee on Science and Technology of the House of  
20 Representatives a report describing the results of the  
21 assessment.

22 (6) PERIODIC UPDATES.—The assessment shall  
23 be updated periodically (including not less frequently  
24 than once every 5 years) as necessary to support

1 public and private sector decisionmaking, as deter-  
2 mined by the Secretary.

3 **SEC. 8003. STUDY OF THE FEASIBILITY RELATING TO CON-**  
4 **STRUCTION OF PIPELINES AND GEOLOGICAL**  
5 **CARBON DIOXIDE SEQUESTRATION ACTIVI-**  
6 **TIES.**

7 (a) IN GENERAL.—The Secretary of Energy, in co-  
8 ordination with the Administrator, the Federal Energy  
9 Regulatory Commission, the Secretary of Transportation,  
10 and the Secretary of the Interior, shall conduct a study  
11 to assess the feasibility of the construction of—

12 (1) pipelines to be used for the transportation  
13 of carbon dioxide for the purpose of sequestration or  
14 enhanced oil recovery; and

15 (2) geological carbon dioxide sequestration fa-  
16 cilities.

17 (b) SCOPE.—The study shall consider—

18 (1) any barrier or potential barrier in existence  
19 as of the date of enactment of this Act, including  
20 any technical, siting, financing, or regulatory bar-  
21 rier, relating to—

22 (A) the construction of pipelines to be used  
23 for the transportation of carbon dioxide for the  
24 purpose of sequestration or enhanced oil recov-  
25 ery; or

1 (B) the geological sequestration of carbon  
2 dioxide;

3 (2) any market risk (including throughput risk)  
4 relating to—

5 (A) the construction of pipelines to be used  
6 for the transportation of carbon dioxide for the  
7 purpose of sequestration or enhanced oil recov-  
8 ery; or

9 (B) the geological sequestration of carbon  
10 dioxide;

11 (3) any regulatory, financing, or siting option  
12 that, as determined by the Secretary of Energy,  
13 would—

14 (A) mitigate any market risk described in  
15 paragraph (2); or

16 (B) help ensure the construction of pipe-  
17 lines dedicated to the transportation of carbon  
18 dioxide for the purpose of sequestration or en-  
19 hanced oil recovery;

20 (4) the means by which to ensure the safe han-  
21 dling and transportation of carbon dioxide;

22 (5) any preventive measure to ensure the inte-  
23 gration of pipelines to be used for the transportation  
24 of carbon dioxide for the purpose of sequestration or  
25 enhanced oil recovery; and

1           (6) any other appropriate use, as determined by  
2           the Secretary of Energy, in coordination with the  
3           Administrator, the Federal Energy Regulatory Com-  
4           mission, the Secretary of Transportation, and the  
5           Secretary of the Interior.

6           (c) REPORT.—Not later than 180 days after the date  
7           of enactment of this Act, the Secretary of Energy shall  
8           submit to the Congress a report describing the results of  
9           the study.

10 **SEC. 8004. LIABILITIES FOR CLOSED GEOLOGICAL STOR-**  
11 **AGE SITES.**

12           (a) ESTABLISHMENT OF TASK FORCE.—As soon as  
13           practicable after the date of enactment of this Act, the  
14           Administrator shall establish a task force, to be composed  
15           of an equal number of stakeholders, the public, subject  
16           matter experts, and members of the private sector, to con-  
17           duct a study of the legal framework, environmental and  
18           safety considerations, and cost implications of potential  
19           Federal assumption of liability with respect to closed geo-  
20           logical storage sites.

21           (b) REPORT.—Not later than 18 months after the  
22           date of enactment of this Act, the task force established  
23           under subsection (a) shall submit to Congress a report de-  
24           scribing the results of the study conducted under sub-  
25           section (a), including recommendations of the task force,

1 if any, with respect to the framework described in that  
2 subsection.

## 3 **TITLE IX—MISCELLANEOUS**

### 4 **SEC. 9001. PARAMOUNT INTEREST WAIVER.**

5 (a) IN GENERAL.—If the President determines that  
6 a national security emergency exists and, in light of infor-  
7 mation that was not available as of the date of enactment  
8 of this Act, it is in the paramount interest of the United  
9 States to modify any requirement under this Act to mini-  
10 mize the effects of the emergency, the President may,  
11 after opportunity for public notice and comment, tempo-  
12 rarily adjust, suspend, or waive any regulations promul-  
13 gated pursuant to this Act to achieve that minimization.

14 (b) CONSULTATION.—In making an emergency deter-  
15 mination under subsection (a), the President shall, to the  
16 maximum extent practicable, consult with and take into  
17 account any advice received from—

18 (1) the National Academy of Sciences;

19 (2) the Secretary of Energy; and

20 (3) the Administrator.

21 (c) JUDICIAL REVIEW.—An emergency determination  
22 under subsection (a) shall be subject to judicial review in  
23 accordance with section 307 of the Clean Air Act (42  
24 U.S.C. 7607).

1 **SEC. 9002. ADMINISTRATIVE PROCEDURE AND JUDICIAL**  
2 **REVIEW.**

3 (a) **RULEMAKING PROCEDURES.**—Any rule, require-  
4 ment, regulation, method, standard, program, determina-  
5 tion, or final action made or promulgated pursuant to any  
6 title of this Act, with the exception of sections 3102, 3103,  
7 3201, and 3901, shall be subject to the rulemaking proce-  
8 dures described in sections 551 through 557 of title 5,  
9 United States Code.

10 (b) **ENFORCEMENT.**—Each provision of this Act (in-  
11 cluding provisions relating to mandatory duties of the Ad-  
12 ministrator) shall be fully enforceable pursuant to sections  
13 113, 303, and 304 of the Clean Air Act (42 U.S.C. 7413,  
14 7603, 7604).

15 (c) **RECORDKEEPING, INSPECTIONS, MONITORING,**  
16 **ENTRY, AND SUBPOENAS.**—The Administrator shall have  
17 the same powers and authority provided under sections  
18 114 and 307(a) of the Clean Air Act (42 U.S.C. 7414,  
19 7607(a)) in carrying out, administering, and enforcing  
20 this Act.

21 (d) **JUDICIAL REVIEW.**—A petition for judicial review  
22 of any regulation promulgated, or final action carried out,  
23 by the Administrator pursuant to this Act may be filed  
24 only—

25 (1) in the United States Court of Appeals for  
26 the District of Columbia; and

1           (2) in accordance with section 307(b) of the  
2           Clean Air Act (42 U.S.C. 7607(b)).

3 **SEC. 9003. RETENTION OF STATE AUTHORITY.**

4           (a) IN GENERAL.—Except as provided in subsection  
5 (b), in accordance with section 116 of the Clean Air Act  
6 (42 U.S.C. 7416) and section 510 of the Federal Water  
7 Pollution Control Act (33 U.S.C. 1370), nothing in this  
8 Act precludes or abrogates the right of any State to adopt  
9 or enforce—

10           (1) any standard, cap, limitation, or prohibition  
11 relating to emissions of greenhouse gas; or

12           (2) any requirement relating to control, abate-  
13 ment, or avoidance of emissions of greenhouse gas.

14           (b) EXCEPTION.—Notwithstanding subsection (a), no  
15 State may adopt a standard, cap, limitation, prohibition,  
16 or requirement that is less stringent than the applicable  
17 standard, cap, limitation, prohibition, or requirement  
18 under this Act.

19 **SEC. 9004. TRIBAL AUTHORITY.**

20           For purposes of this Act, the Administrator may  
21 treat any federally recognized Indian tribe as a State, in  
22 accordance with section 301(d) of the Clean Air Act (42  
23 U.S.C. 7601(d)).



1 **SEC. 9005. ROCKY MOUNTAIN CENTERS FOR STUDY OF**  
2 **COAL UTILIZATION.**

3 (a) DESIGNATION.—The University of Wyoming and  
4 Montana State University shall be known and designated  
5 as the “Rocky Mountain Centers for the Study of Coal  
6 Utilization”.

7 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
8 are authorized to be appropriated such sums as are nec-  
9 essary to carry out this section.

10 **SEC. 9006. SUN GRANT CENTER RESEARCH ON COMPLI-**  
11 **ANCE WITH CLEAN AIR ACT.**

12 (a) DESIGNATION.—Each sun grant center is des-  
13 igned as a research institution of the Environmental  
14 Protection Agency for the purpose of conducting studies  
15 regarding the effects of biofuels and biomass on national  
16 and regional compliance with the Clean Air Act (42 U.S.C.  
17 7401 et seq.).

18 (b) FUNDING.—The Administrator shall provide to  
19 the sun grant centers such funds as the Administrator de-  
20 termines to be necessary to carry out studies described  
21 in subsection (a).

22 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
23 are authorized to be appropriated such sums as are nec-  
24 essary to carry out this section.

1 **SEC. 9007. AUTHORIZATION OF APPROPRIATIONS.**

2       There are authorized to be appropriated such sums  
3 as are necessary to carry out this Act.

4 **TITLE           X—CONTROL           OF**  
5 **HYDROFLUOROCARBON CON-**  
6 **SUMPTION**

7 **SEC. 10001. APPLICABILITY.**

8       For purposes of this Act, it shall be unlawful for any  
9 person to produce or import for consumption in the United  
10 States any hydrofluorocarbon, or product or equipment  
11 containing a hydrofluorocarbon, except exclusively in ac-  
12 cordance with this title and the regulations promulgated  
13 by the Administrator pursuant to this title.

14 **SEC. 10002. DEFINITIONS.**

15       In this title:

16           (1) **BASELINE.**—The term “baseline” means  
17 the global warming potential-weighted equivalent of  
18 300,000,000 metric tons of carbon dioxide.

19           (2) **ENTITY; PERSON.**—The terms “entity” and  
20 “person” have the meaning given the term “person”  
21 in section 551 of title 5, United States Code.

22           (3) **GLOBAL WARMING POTENTIAL.**—

23           (A) **IN GENERAL.**—The term “global  
24 warming potential” means the potential con-  
25 tribution to global warming of a  
26 hydrofluorocarbon, as compared to the potential

1 contribution to global warming of an equal  
2 weight of carbon dioxide.

3 (B) CALCULATION.—For the purposes of  
4 calculating the global warming potential of a  
5 hydrofluorocarbon, the values for the 100-year  
6 time horizon in the fourth assessment report of  
7 the Intergovernmental Panel on Climate  
8 Change shall be used.

9 (4) GLOBAL WARMING POTENTIAL-WEIGHT-  
10 ED.—The term “global warming potential-weight-  
11 ed”, with respect to a hydrofluorocarbon, means the  
12 value equal to the product obtained, for purposes of  
13 determining the quantity of carbon dioxide with an  
14 equivalent global warming potential, by multi-  
15 plying—

16 (A) a certain quantity of the  
17 hydrofluorocarbon; and

18 (B) the global warming potential of the  
19 hydrofluorocarbon.

20 (5) HYDROCHLOROFLUOROCARBON.—The term  
21 “hydrochlorofluorocarbon” means any  
22 hydrochlorofluorocarbon identified in section 602(b)  
23 of the Clean Air Act (42 U.S.C. 7671a(b)).

24 (6) HYDROFLUOROCARBON.—The term  
25 “hydrofluorocarbon” means a hydrofluoroalkane.

1 (7) HYDROFLUOROCARBON CONSUMPTION.—

2 (A) IN GENERAL.—The term  
3 “hydrofluorocarbon consumption”, with respect  
4 to a hydrofluorocarbon, means—

5 (i) in the case of a hydrofluorocarbon  
6 producer, a value equal to the difference  
7 between—

8 (I) a value equal to the sum of—

9 (aa) the quantity of the  
10 hydrofluorocarbon produced in  
11 the United States; and

12 (bb) the quantity of the  
13 hydrofluorocarbon imported from  
14 any source into the United States  
15 or acquired in the United States  
16 from another hydrofluorocarbon  
17 producer through sale or other  
18 transaction; and

19 (II) the quantity of the  
20 hydrofluorocarbon exported or trans-  
21 ferred to another hydrofluorocarbon  
22 producer or importer in the United  
23 States through sale or other trans-  
24 action; and

1 (ii) in the case of a hydrofluorocarbon  
2 importer, a value equal to the difference  
3 between—

4 (I) the quantity of the  
5 hydrofluorocarbon imported from any  
6 source into the United States; and

7 (II) the quantity of the  
8 hydrofluorocarbon exported.

9 (B) EXCLUSION.—The term  
10 “hydrofluorocarbon consumption” does not in-  
11 clude a quantity of hydrofluorocarbon that is  
12 recycled.

13 (8) HYDROFLUOROCARBON CONSUMPTION AL-  
14 LOWANCE.—The term “hydrofluorocarbon consump-  
15 tion allowance” means an authorization—

16 (A) to produce or import a global warming  
17 potential-weighted quantity of  
18 hydrofluorocarbon equivalent to 1 metric ton of  
19 carbon dioxide; or

20 (B) to import products or equipment con-  
21 taining a quantity of hydrofluorocarbon equiva-  
22 lent in global warming potential to 1 metric ton  
23 of carbon dioxide.

24 (9) HYDROFLUOROCARBON DESTRUCTION.—  
25 The term “hydrofluorocarbon destruction” means a

1 process that results in the permanent transformation  
2 or decomposition of all or a significant portion of a  
3 hydrofluorocarbon to another gas, liquid, or solid  
4 with a lower or zero global warming potential.

5 (10) HYDROFLUOROCARBON DESTRUCTION AL-  
6 LOWANCE.—The term “hydrofluorocarbon destruc-  
7 tion allowance” means an authorization to produce  
8 or import a global warming potential-weighted quan-  
9 tity of hydrofluorocarbon equal to the global warm-  
10 ing potential-weighted quantity of hydrofluorocarbon  
11 destroyed pursuant to section 10010.

12 (11) HYDROFLUOROCARBON IMPORTER.—The  
13 term “hydrofluorocarbon importer” means an entity  
14 that imported hydrofluorocarbon or products or  
15 equipment containing hydrofluorocarbon into the  
16 United States during calendar year 2005.

17 (12) HYDROFLUOROCARBON PRODUCER.—The  
18 term “hydrofluorocarbon producer” means an entity  
19 that produced hydrofluorocarbon in the United  
20 States for sale in the United States during calendar  
21 year 2005.

22 (13) IMPORT.—The term “import” means the  
23 action of landing on or bringing or introducing a  
24 product into, or attempting to land on or bring or  
25 introduce a product into, any area subject to the ju-

1 jurisdiction of the United States, regardless of whether  
2 the action constitutes an importation within the  
3 meaning of the customs laws of the United States.

4 (14) PRODUCE; PRODUCTION.—

5 (A) IN GENERAL.—The terms “produce”  
6 and “production” mean the manufacture of a  
7 hydrofluorocarbon from any raw material, feed-  
8 stock, or chemical.

9 (B) EXCLUSIONS.—The terms “produce”  
10 and “production” do not include—

11 (i) the manufacture of a  
12 hydrofluorocarbon that is used and entirely  
13 consumed (except for trace quantities) in  
14 the manufacture of other chemicals or  
15 products; or

16 (ii) the reuse or recycling of a  
17 hydrofluorocarbon.

18 (15) RECYCLE; REUSE.—The terms “reuse”  
19 and “recycle” mean—

20 (A) the removal of a quantity of  
21 hydrofluorocarbon from a product or equip-  
22 ment;

23 (B) the reprocessing of the product or  
24 equipment to remove impurities; and

1 (C) the offering of the product or equip-  
2 ment for sale in the United States.

3 **SEC. 10003. CAP ON HYDROFLUOROCARBON CONSUMPTION**  
4 **AND IMPORTATION INTO UNITED STATES.**

5 (a) ESTABLISHMENT.—The Administrator shall es-  
6 tablish a cap on hydrofluorocarbon consumption in the  
7 United States for each calendar year during the period  
8 of calendar years 2010 through 2050, as directed in sec-  
9 tion 10004 that shall not be exceeded except as provided  
10 in section 10009.

11 (b) PROHIBITION.—Consumption of a  
12 hydrofluorocarbon or products or equipment containing  
13 any hydrofluorocarbon, except as provided in this title,  
14 shall be illegal.

15 **SEC. 10004. HYDROFLUOROCARBON CONSUMPTION ALLOW-**  
16 **ANCE ACCOUNT.**

17 (a) ALLOWANCE ACCOUNT.—

18 (1) ESTABLISHMENT.—Not later than April 1,  
19 2009, and annually thereafter through April 1,  
20 2050, the Administrator shall establish and allocate  
21 a separate quantity of hydrofluorocarbon consump-  
22 tion allowances.

23 (2) DENOMINATION.—Hydrofluorocarbon con-  
24 sumption allowances shall be denominated in metric  
25 tons of carbon dioxide equivalent.



1           (b) IDENTIFICATION NUMBERS.—The Administrator  
2 shall assign to each hydrofluorocarbon consumption allow-  
3 ance established under subsection (a) a unique identifica-  
4 tion number that includes the calendar year for which the  
5 hydrofluorocarbon consumption allowance was assigned.

6           (c) LEGAL STATUS OF HYDROFLUOROCARBON CON-  
7 SUMPTION ALLOWANCES.—

8           (1) IN GENERAL.—A consumption allowance al-  
9 located under this title is a limited authorization to  
10 produce or import a hydrofluorocarbon and any  
11 product or equipment containing a  
12 hydrofluorocarbon, in accordance with this title.

13           (2) ALLOWANCE NOT PROPERTY RIGHT.—A  
14 hydrofluorocarbon consumption allowance does not  
15 constitute a property right.

16           (3) TERMINATION OR LIMITATION.—Nothing in  
17 this Act or any other provision of law limits the au-  
18 thority of the United States to terminate or limit  
19 hydrofluorocarbon consumption allowances.

20           (4) EFFECT OF ACT.—Nothing in this Act re-  
21 lating to hydrofluorocarbon consumption allowances  
22 shall affect the application of, or any requirement of  
23 compliance with, any other provision of law by any  
24 person.

1 (d) LIFETIME OF HYDROFLUOROCARBON CONSUMP-  
 2 TION ALLOWANCES.—Hydrofluorocarbon consumption al-  
 3 lowances distributed by the Administrator and  
 4 hydrofluorocarbon destruction allowances may be used for  
 5 compliance for a period of not more than 5 years after  
 6 the calendar year for which the allowances are allocated.

7 (e) HYDROFLUOROCARBON CONSUMPTION ALLOW-  
 8 ANCES FOR EACH CALENDAR YEAR.—The number of  
 9 hydrofluorocarbon consumption allowances established  
 10 and allocated by the Administrator for each of calendar  
 11 years 2010 through 2050 shall be as follows:

<b>Calendar year</b>	<b>HFC consumption allowances (in million metric tons)</b>
2010 .....	300
2011 .....	294
2012 .....	289
2013 .....	283
2014 .....	278
2015 .....	272
2016 .....	267
2017 .....	261
2018 .....	256
2019 .....	250
2020 .....	245
2021 .....	239
2022 .....	234
2023 .....	228
2024 .....	222
2025 .....	217
2026 .....	206
2027 .....	195
2028 .....	184
2029 .....	173
2030 .....	162
2031 .....	150
2032 .....	139
2033 .....	128
2034 .....	117
2035 .....	106
2036 .....	95

2037 .....	90
2038 .....	90
2039 .....	90
2040 .....	90
2041 .....	90
2042 .....	90
2043 .....	90
2044 .....	90
2045 .....	90
2046 .....	90
2047 .....	90
2048 .....	90
2049 .....	90
2050 .....	90

1 **SEC. 10005. ALLOCATION OF HYDROFLUOROCARBON CON-**  
2 **SUMPTION ALLOWANCES.**

3 (a) IN GENERAL.—Not later than 90 days before the  
4 beginning of each applicable calendar year, the Adminis-  
5 trator shall allocate the portion of the hydrofluorocarbon  
6 consumption allowances in the hydrofluorocarbon con-  
7 sumption allowance account that is available for allocation  
8 for that calendar year.

9 (b) ELIGIBLE ENTITIES.—

10 (1) IN GENERAL.—The Administrator shall al-  
11 locate hydrofluorocarbon consumption allowances as  
12 described in paragraph (2) to entities that—

13 (A) were hydrofluorocarbon producers or  
14 hydrofluorocarbon importers during the period  
15 beginning on January 1, 2004, and ending on  
16 December 31, 2006; and

17 (B) are hydrofluorocarbon producers or  
18 hydrofluorocarbon importers on the date of en-  
19 actment of this Act.

## 1           (2)   DESCRIPTION   OF   ALLOCATION.—

2   Hydrofluorocarbon consumption allowances shall be  
3   allocated to entities described in paragraph (1) as  
4   follows:

## 5           (A)   HYDROFLUOROCARBON PRODUCERS.—

6           Each hydrofluorocarbon producer shall receive a  
7           quantity of hydrofluorocarbon allowances equal  
8           to the ratio that—

9                   (i) a value equal to the difference be-  
10                   tween—

11                           (I) the global warming potential-  
12                           weighted average of 100 percent of  
13                           the hydrofluorocarbon and 60 percent  
14                           of the hydrochlorofluorocarbon pro-  
15                           duced in the United States, imported  
16                           into the United States, or acquired in  
17                           the United States by the  
18                           hydrofluorocarbon producer during  
19                           the period beginning on January 1,  
20                           2004, and ending on December 31,  
21                           2006; and

22                           (II) the global warming potential-  
23                           weighted average of 100 percent of  
24                           the hydrofluorocarbon and 60 percent  
25                           of the hydrochlorofluorocarbon that

1 the producer exported or transferred  
2 to another producer of  
3 hydrofluorocarbons in the United  
4 States during the period described in  
5 subclause (I); bears to

6 (ii) a value equal to the difference be-  
7 tween—

8 (I) the total global warming po-  
9 tential-weighted average of 100 per-  
10 cent of the hydrofluorocarbon and 60  
11 per cent of the  
12 hydrochlorofluorocarbon produced in  
13 or imported into the United States  
14 during the period described in clause  
15 (i)(I); and

16 (II) the global warming potential-  
17 weighted average of 100 percent of  
18 the hydrofluorocarbon and 60 per cent  
19 of the hydrochlorofluorocarbon ex-  
20 ported from the United States during  
21 that period.

22 (B) HYDROFLUOROCARBON IMPORTERS.—  
23 Each hydrofluorocarbon importer shall receive a  
24 quantity of hydrofluorocarbon allowances equal  
25 to the ratio that—

1 (i) the global warming potential-  
2 weighted average of 100 percent of  
3 hydrofluorocarbon and 60 percent of  
4 hydrochlorofluorocarbon imported by the  
5 hydrofluorocarbon importer as a product  
6 or contained in equipment during the pe-  
7 riod beginning on January 1, 2004, and  
8 ending on December 31, 2006; bears to

9 (ii) a value equal to the difference be-  
10 tween—

11 (I) the total global warming po-  
12 tential-weighted average of 100 per-  
13 cent of the hydrofluorocarbon and 60  
14 per cent of the  
15 hydrochlorofluorocarbon produced in  
16 and imported into the United States  
17 during the period described in clause  
18 (i); and

19 (II) the global warming potential-  
20 weighted average of 100 percent of  
21 the hydrofluorocarbon and 60 per cent  
22 of the hydrochlorofluorocarbon ex-  
23 ported from the United States during  
24 that period.

25 (c) WITHHOLDING ALLOWANCES.—

1           (1) IN GENERAL.—For calendar year 2010 and  
 2 each calendar year thereafter, the Administrator  
 3 shall withhold a quantity of hydrofluorocarbon con-  
 4 sumption allowances that would otherwise be allo-  
 5 cated under subsection (b) for auction at least annu-  
 6 ally by the Corporation to the entities identified in  
 7 subsection (b)(1).

8           (2) AUCTIONS BY CORPORATION.—For each ap-  
 9 plicable calendar year, the Administrator shall with-  
 10 hold, and the Corporation shall auction to the enti-  
 11 ties identified in subsection (b)(1), the following  
 12 quantities of the hydrofluorocarbon consumption al-  
 13 lowances established under section 10004:

<b>Calendar year</b>	<b>Percent withheld for auction</b>
2010 .....	5
2011 .....	10
2012 .....	10
2013 .....	10
2014 .....	15
2015 .....	20
2016 .....	25
2017 .....	30
2018 .....	35
2019 .....	40
2020 .....	45
2021 .....	50
2022 .....	55
2023 .....	60
2024 .....	65
2025 .....	70
2026 .....	75
2027 .....	80
2028 .....	85
2029 .....	90
2030 .....	95
2031 .....	100
2032 .....	100
2033 .....	100
2034 .....	100

2035 .....	100
2036 .....	100
2037 .....	100
2038 .....	100
2039 .....	100
2040 .....	100
2041 .....	100
2042 .....	100
2043 .....	100
2044 .....	100
2045 .....	100
2046 .....	100
2047 .....	100
2048 .....	100
2049 .....	100
2050 .....	100

1           (3) PROCEEDS.—The Corporation shall award  
2           the proceeds of the auction to support the following  
3           purposes:

4                   (A) A program to recover and destroy the  
5                   maximum economically recoverable  
6                   chlorofluorocarbons, halons, and other sub-  
7                   stances listed under title VI of the Clean Air  
8                   Act (42 U.S.C. 7671 et seq.) that have signifi-  
9                   cant ozone depletion potential and global warm-  
10                  ing potential.

11                  (B) A program of incentives for consumer  
12                  purchases of refrigeration and cooling equip-  
13                  ment that—

14                   (i) contains refrigerants with no or  
15                   low global warming potential; and

16                   (ii) achieves energy efficiency that  
17                   represents at least a 30 percent improve-



1                   ment, as compared to the more efficient  
2                   of—

3                               (I) the applicable Federal energy  
4                               efficiency standard; and

5                               (II) the applicable Energy Star  
6                               rating.

7                   (C) A program to support the development  
8                   and deployment of—

9                               (i) hydrofluorocarbons with low global  
10                              warming potential; and

11                             (ii) energy efficient technologies,  
12                             equipment, and products containing or  
13                             using hydrofluorocarbons.

14                   (D) The programs receiving auction pro-  
15                   ceeds under title IV.

16 **SEC. 10006. COMPLIANCE OBLIGATION.**

17           (a) SUBMISSION OF ALLOWANCES.—

18                   (1) IN GENERAL.—Not later than 90 days after  
19                   the end of each applicable calendar year, a  
20                   hydrofluorocarbon producer or hydrofluorocarbon  
21                   importer shall submit to the Administrator a quan-  
22                   tity of hydrofluorocarbon consumption allowances, or  
23                   hydrofluorocarbon destruction allowances awarded  
24                   pursuant to section 10010, equal to the total num-  
25                   ber of global warming potential-weighted tons of

1 hydrofluorocarbon consumed in the United States  
2 during the preceding calendar year by the  
3 hydrofluorocarbon producer or hydrofluorocarbon  
4 importer, as determined in accordance with para-  
5 graphs (2) and (3).

6 (2) HYDROFLUOROCARBON PRODUCERS.—For  
7 hydrofluorocarbon producers, the quantity of  
8 hydrofluorocarbon consumed shall be a value equal  
9 to the difference between—

10 (A) the global warming potential-weighted  
11 tons of hydrofluorocarbon produced in the  
12 United States, imported as a product, or ac-  
13 quired in the United States from another  
14 hydrofluorocarbon producer through sale or  
15 other transaction; and

16 (B) the global warming potential-weighted  
17 tons of hydrofluorocarbon the producer ex-  
18 ported or transferred to another  
19 hydrofluorocarbon producer in the United  
20 States through sale or other transaction.

21 (3) HYDROFLUOROCARBON IMPORTERS.—For  
22 hydrofluorocarbon importers, hydrofluorocarbon con-  
23 sumed shall be a value equal to the global warming  
24 potential-weighted tons of hydrofluorocarbon im-  
25 ported by the hydrofluorocarbon importer or ac-

1       quired in the United States from a  
2       hydrofluorocarbon producer through sale or other  
3       transaction.

4       (b) RETIREMENT.—Immediately on receipt of a  
5       hydrofluorocarbon consumption allowance or a  
6       hydrofluorocarbon destruction allowance under subsection  
7       (a), the Administrator shall retire the allowance.

8       (c) DETERMINATION OF COMPLIANCE.—Not later  
9       than July 1 of each year, the Administrator shall—

10           (1) determine whether each hydrofluorocarbon  
11           producer and hydrofluorocarbon importer achieved  
12           compliance with subsection (a) for the preceding  
13           year; and

14           (2) so notify each hydrofluorocarbon producer  
15           and hydrofluorocarbon importer.

16       (d) PENALTIES.—A hydrofluorocarbon producer or  
17       hydrofluorocarbon importer that is not in compliance with  
18       subsection (a), as determined under subsection (c), shall  
19       be liable for the payment of an excess consumption penalty  
20       as provided in section 1203, except that the deadlines de-  
21       scribed in this title shall be substituted for the deadlines  
22       described in that section.

1 **SEC. 10007. SALE, EXCHANGE, AND OTHER USES OF**  
2 **HYDROFLUOROCARBON CONSUMPTION AL-**  
3 **LOWANCES.**

4 (a) PERMISSIBLE USES.—

5 (1) IN GENERAL.—A hydrofluorocarbon pro-  
6 ducer or hydrofluorocarbon importer may purchase,  
7 hold, sell, exchange, transfer, submit for compliance  
8 in accordance with section 10006, or retire  
9 hydrofluorocarbon consumption allowances or  
10 hydrofluorocarbon destruction allowances.

11 (2) ACTION ON RETIREMENT.—If any  
12 hydrofluorocarbon producer or hydrofluorocarbon  
13 importer permanently retires a hydrofluorocarbon  
14 consumption allowance, the Administrator shall  
15 promptly redistribute the allowance to another  
16 hydrofluorocarbon producer or hydrofluorocarbon  
17 importer pursuant to section 10005(b).

18 (b) PROHIBITIONS.—

19 (1) IN GENERAL.—Hydrofluorocarbon con-  
20 sumption allowances or hydrofluorocarbon destruc-  
21 tion allowances shall not be traded or exchanged  
22 with allowances associated with any other emission  
23 allowance allocation or trading program under this  
24 Act.

25 (2) CERTAIN USES.—Hydrofluorocarbon con-  
26 sumption allowances shall not be used to achieve

1 compliance with any other obligation relating to  
2 emissions of greenhouse gases regulated under any  
3 other provision of this Act, and emission allowances  
4 established and allocated under any other provision  
5 of this Act shall not be used to achieve compliance  
6 with this title.

7 (c) LIMITATION.—The privilege of purchasing, hold-  
8 ing, selling, exchanging, transferring, and submitting for  
9 compliance in accordance with section 10006, and retiring  
10 hydrofluorocarbon consumption allowances or  
11 hydrofluorocarbon destruction allowances shall be re-  
12 stricted to entities described in section 10005(b)(1).

13 **SEC. 10008. ALLOWANCE TRANSFER SYSTEM.**

14 (a) REGULATIONS.—Not later than 18 months after  
15 the date of enactment of this Act, the Administrator shall  
16 promulgate regulations to carry out the provisions of this  
17 title relating to hydrofluorocarbon consumption allowances  
18 and hydrofluorocarbon destruction allowances, including  
19 regulations providing that the transfer of those allowances  
20 shall not be effective until the date on which a written  
21 certification of the transfer, signed by a responsible official  
22 of each party to the transfer, is received and recorded by  
23 the Administrator in accordance with those regulations.

24 (b) TRANSFERS.—

1           (1) IN GENERAL.—The regulations promulgated  
2           under subsection (a) shall permit the transfer of  
3           hydrofluorocarbon consumption allowances prior to  
4           the allocation of the allowances.

5           (2) DEDUCTION AND ADDITION OF TRANS-  
6           FERS.—A recorded preallocation transfer of  
7           hydrofluorocarbon consumption allowances shall  
8           be—

9                   (A) deducted by the Administrator from  
10           the number of hydrofluorocarbon consumption  
11           allowances that would otherwise be allocated to  
12           the transferor; and

13                   (B) added to those hydrofluorocarbon con-  
14           sumption allowances allocated to the transferee.

15           (c) ISSUANCE, RECORDING, AND TRACKING SYS-  
16           TEM.—The regulations promulgated under subsection (a)  
17           shall include a system for issuing, recording, and tracking  
18           hydrofluorocarbon consumption and hydrofluorocarbon de-  
19           struction allowances that shall specify all necessary proce-  
20           dures and requirements for an orderly and competitive  
21           functioning of the hydrofluorocarbon consumption allow-  
22           ance system.

23   **SEC. 10009. BANKING AND BORROWING.**

24           (a) BANKING.—A hydrofluorocarbon producer or  
25           hydrofluorocarbon importer that submits

1 hydrofluorocarbon consumption allowances or  
2 hydrofluorocarbon destruction allowances to the Adminis-  
3 trator to achieve compliance with section 10006 shall indi-  
4 cate in the identification number of the hydrofluorocarbon  
5 consumption allowance or hydrofluorocarbon destruction  
6 allowance the calendar year for which the allowance is sub-  
7 mitted.

8 (b) BORROWING OF HYDROFLUOROCARBON CON-  
9 SUMPTION ALLOWANCES.—In accordance with the regula-  
10 tions promulgated under section 10008(a), and subject to  
11 subsection (d), a hydrofluorocarbon producer or  
12 hydrofluorocarbon importer may—

13 (1) borrow hydrofluorocarbon consumption al-  
14 lowances from the Administrator; and

15 (2) for a calendar year, submit borrowed  
16 hydrofluorocarbon consumption allowances to the  
17 Administrator to satisfy not more than 15 percent of  
18 the compliance obligation under section 10006.

19 (c) LIMITATION ON BORROWING.—A  
20 hydrofluorocarbon consumption allowance borrowed under  
21 subsection (b) shall be a hydrofluorocarbon consumption  
22 allowance established by the Administrator for a specific  
23 subsequent calendar year under section 10004(g).

24 (d) TERM.—A producer or importer shall not submit,  
25 and the Administrator shall not accept, a borrowed

1 hydrofluorocarbon consumption allowance in partial satis-  
2 faction of the compliance obligation under section 10006  
3 for any calendar year that is more than 5 years before  
4 the calendar year included in the identification number of  
5 the borrowed hydrofluorocarbon consumption allowance.

6 (e) REPAYMENT OF INTEREST.—For any borrowed  
7 hydrofluorocarbon consumption allowance submitted in  
8 partial satisfaction of the compliance obligation under sec-  
9 tion 10006 for a particular calendar year (referred to in  
10 this subsection as the “use year”), the number of  
11 hydrofluorocarbon consumption allowances or  
12 hydrofluorocarbon destruction allowances that the  
13 hydrofluorocarbon producer or hydrofluorocarbon im-  
14 porter is required to submit under section 10006 for the  
15 year from which the borrowed hydrofluorocarbon con-  
16 sumption allowance was taken (referred to in this sub-  
17 section as the “source year”) shall be increased by an  
18 amount equal to the product obtained by multiplying—

19 (1) 1.1; and

20 (2) the number of calendar years beginning  
21 after the use year but before the source year.

22 **SEC. 10010. HYDROFLUOROCARBON DESTRUCTION ALLOW-**  
23 **ANCES.**

24 (a) DESTRUCTION OF HYDROFLUOROCARBON.—



1           (1) IN GENERAL.—The Administrator shall  
2 issue hydrofluorocarbon destruction allowances to  
3 any hydrofluorocarbon producer or  
4 hydrofluorocarbon importer that performs or ar-  
5 ranges for recovery and destruction of  
6 hydrofluorocarbon from products or equipment.

7           (2) ISSUANCE AND DENOMINATION.—  
8 Hydrofluorocarbon destruction allowances shall be  
9 issued on a global warming potential-weighted basis,  
10 denominated in terms of metric tons of carbon diox-  
11 ide.

12           (3) LIMITATIONS.—

13           (A) BYPRODUCTS.—No hydrofluorocarbon  
14 destruction allowance shall be issued under this  
15 section for destruction of hydrofluorocarbon  
16 produced as a byproduct in a production proc-  
17 ess.

18           (B) CERTAIN PURPOSES.—No  
19 hydrofluorocarbon destruction allowance shall  
20 be issued under this section for destruction or  
21 recycling of hydrofluorocarbon produced for a  
22 purpose other than the ultimate sale and use of  
23 the product.

24           (b) REGULATIONS.—

1           (1) REQUIREMENT.—The regulations promul-  
2           gated under section 10008(a) shall authorize the  
3           issuance of hydrofluorocarbon destruction allow-  
4           ances.

5           (2) CRITERIA.—Those regulations shall estab-  
6           lish appropriate criteria for determining—

7                   (A) the effectiveness of destruction;

8                   (B) the net quantity of global warming po-  
9                   tential-weighted hydrofluorocarbon that has  
10                  been destroyed; and

11                  (C) procedures for verification, registra-  
12                  tion, and issuance of hydrofluorocarbon destruc-  
13                  tion allowances.

14          (c) SATISFACTION OF REQUIREMENTS.—Beginning  
15 with calendar year 2012, a hydrofluorocarbon producer or  
16 hydrofluorocarbon importer may satisfy a portion of the  
17 hydrofluorocarbon consumption allowance submission re-  
18 quirement under section 10006 by submitting  
19 hydrofluorocarbon destruction allowances generated in ac-  
20 cordance with the regulations promulgated pursuant to  
21 section 10008(a).

22          (d) OWNERSHIP.—Initial ownership of a  
23 hydrofluorocarbon destruction allowance shall be held by  
24 the hydrofluorocarbon producer or hydrofluorocarbon im-  
25 porter that performs or arranges for recovery and destruc-

1 tion or recycling of hydrofluorocarbon, including  
 2 hydrofluorocarbon from products or equipment containing  
 3 hydrofluorocarbon, unless otherwise specified in a legally  
 4 binding contract or agreement to which the  
 5 hydrofluorocarbon producer or hydrofluorocarbon im-  
 6 porter is a party.

7 (e) TRANSFERABILITY.—A hydrofluorocarbon de-  
 8 struction allowance generated pursuant to the regulations  
 9 promulgated pursuant to subsection (b)—

10 (1) may be sold, traded, or transferred to any  
 11 hydrofluorocarbon producer or hydrofluorocarbon  
 12 importer referred to in section 10005(b); but

13 (2) shall not be sold, traded, transferred, or  
 14 used for compliance with any other emission allow-  
 15 ance requirement of this Act or any other law.

## 16 **TITLE XI—AMENDMENTS TO** 17 **CLEAN AIR ACT**

### 18 **SEC. 11001. NATIONAL RECYCLING AND EMISSION REDUC-** 19 **TION PROGRAM.**

20 Section 608 of the Clean Air Act (42 U.S.C. 7671g)  
 21 is amended—

22 (1) by redesignating subsections (a) through (c)  
 23 as subsections (b) through (d), respectively;

24 (2) by inserting before subsection (b) (as so re-  
 25 designated) the following:

1       “(a) DEFINITION OF HYDROFLUOROCARBON SUB-  
2       STITUTE.—In this section, the term ‘hydrofluorocarbon  
3       substitute’ means a hydrofluorocarbon—

4               “(1) with a global warming potential of more  
5       than 150; and

6               “(2) that is used in or for types of equipment,  
7       appliances, or processes that previously relied on  
8       class I or class II substances.”;

9               (3) in subsection (b) (as so redesignated)—

10               (A) in the matter following paragraph (3),  
11       by striking “Such regulations” and inserting  
12       the following:

13               “(5) The regulations”;

14               (B) by redesignating paragraph (3) as  
15       paragraph (4); and

16               (C) by inserting after paragraph (2) the  
17       following:

18               “(3)(A) Not later than 1 year after the date of  
19       enactment of the Lieberman-Warner Climate Secu-  
20       rity Act of 2008, the Administrator shall promulgate  
21       regulations establishing standards and requirements  
22       regarding the sale or distribution, or offer for sale  
23       and distribution in interstate commerce, use, and  
24       disposal of hydrofluorocarbon substitutes for class I  
25       and class II substances not covered by paragraph

1 (1), including the use, recycling, and disposal of  
2 those hydrofluorocarbon substitutes during the  
3 maintenance, service, repair, or disposal of appli-  
4 ances and industrial process refrigeration equipment.

5 “(B) The standards and requirements estab-  
6 lished under subparagraph (A) shall take effect not  
7 later than 1 year after the date of promulgation of  
8 the regulations.”;

9 (4) in subsection (c) (as so redesignated)—

10 (A) by redesignating paragraphs (1)  
11 through (3) as subparagraphs (A) through (C),  
12 respectively, and indenting the subparagraphs  
13 appropriately;

14 (B) by striking the subsection designation  
15 and heading and all that follows through “fol-  
16 lowing—” and inserting the following:

17 “(c) SAFE DISPOSAL.—The regulations under sub-  
18 section (b) shall—

19 “(1) establish standards and requirements for  
20 the safe disposal of class I and II substances and  
21 hydrofluorocarbon substitutes for those substances;  
22 and

23 “(2) include each of the following:”;

24 (C) in subparagraph (A) (as redesignated  
25 by subparagraph (A)), by inserting “(or

1 hydrofluorocarbon substitutes for those sub-  
2 stances)” after “class I or class II substances”;  
3 and

4 (D) in paragraphs (2) and (3), by inserting  
5 “(or a hydrofluorocarbon substitutes for such a  
6 substance)” after “class I or class II sub-  
7 stance” each place it appears.

8 **SEC. 11002. SERVICING OF MOTOR VEHICLE AIR CONDI-**  
9 **TIONERS.**

10 Section 609 of the Clean Air Act (42 U.S.C. 7671h)  
11 is amended—

12 (1) in subsection (b), by adding at the end the  
13 following:

14 “(5) The term ‘hydrofluorocarbon substitute’  
15 means a hydrofluorocarbon—

16 “(A) with a global warming potential of  
17 more than 150; and

18 “(B) that is used in or for types of equip-  
19 ment, appliances, or processes that previously  
20 relied on class I or class II substances.”; and

21 (2) in subsection (e)—

22 (A) by striking the subsection designation  
23 and heading and all that follows through “Ef-  
24 fective” and inserting the following:

1       “(e) SMALL CONTAINERS OF CLASS I OR CLASS II  
2 SUBSTANCES AND HYDROFLUOROCARBON SUB-  
3 STITUTES.—

4           “(1) CLASS I OR CLASS II SUBSTANCES.—Effec-  
5 tive beginning”; and

6           (B) by adding at the end the following:

7           “(2) HYDROFLUOROCARBON SUBSTITUTES.—  
8 Effective beginning January 1, 2010, it shall be un-  
9 lawful for any person to sell or distribute, or offer  
10 for sale or distribution, in interstate commerce to  
11 any person (other than a person performing service  
12 for consideration on motor vehicle air-conditioning  
13 systems in compliance with this section) any  
14 hydrofluorocarbon substitute that is—

15           “(A) suitable for use in a motor vehicle  
16 air-conditioning system; and

17           “(B) in a container that contains less than  
18 20 pounds of the hydrofluorocarbon sub-  
19 stitute.”.

20 **SEC. 11003. CARBON DIOXIDE REDUCTION.**

21 (a) FINDINGS.—Congress finds that—

22       (1) oil used for transportation contributes sig-  
23 nificantly to air pollution, including global warming  
24 pollution, water pollution, and other adverse impacts  
25 on the environment;

1           (2) to reduce emissions of global warming pol-  
2           lutants, the United States should increasingly rely  
3           on advanced clean fuels for transportation; and

4           (3) a comparison of life-cycle greenhouse gas  
5           emissions of conventional transportation fuels and  
6           low-carbon transportation fuels should be based on  
7           comparable fuels, such as a comparison of gasoline  
8           to gasoline and diesel fuel to diesel fuel.

9           (b) DEFINITIONS.—Section 211(o)(1) of the Clean  
10          Air Act (42 U.S.C. 7545(o)(1)) is amended—

11           (1) by redesignating subparagraphs (B), (C),  
12           and (D) as subparagraphs (J), (G), and (H), respec-  
13           tively, and moving those subparagraphs so as to ap-  
14           pear in alphabetical order;

15           (2) by inserting after subparagraph (A) the fol-  
16           lowing:

17                   “(B) CULTIVATED NOXIOUS PLANT.—The  
18                   term ‘cultivated noxious plant’ means a plant  
19                   that is included on—

20                           “(i) the Federal noxious weed list  
21                           maintained by the Animal and Plant  
22                           Health Inspection Service; or

23                           “(ii) any equivalent State list.

24                   “(C) FUEL EMISSION BASELINE.—The  
25                   term ‘fuel emission baseline’ means the average



1 lifecycle greenhouse gas emissions per unit of  
2 energy of conventional transportation fuels in  
3 commerce in the United States in calendar year  
4 2008, as determined by the Administrator  
5 under paragraph (11).

6 “(D) FUEL PROVIDER.—

7 “(i) IN GENERAL.—The term ‘fuel  
8 provider’ means an obligated party (as de-  
9 scribed in section 80.1106 of title 40, Code  
10 of Federal Regulations (or a successor reg-  
11 ulation)).

12 “(ii) INCLUSIONS.—The term ‘fuel  
13 provider’ includes, as the Administrator  
14 determines to be appropriate, an individual  
15 or entity that produces, blends, or imports  
16 gasoline or any other transportation fuel in  
17 commerce in, or into, the United States.

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

20 “(i) carbon dioxide;

21 “(ii) methane;

22 “(iii) nitrous oxide;

23 “(iv) hydrofluorocarbons;

24 “(v) perfluorocarbons;

25 “(vi) sulfur hexafluoride; and

1           “(vii) any other emission or effect  
2           (such as particulate matter or a change in  
3           albedo) that the Administrator determines  
4           to be a significant factor in global warming  
5           as a result of the use of transportation  
6           fuel.

7           “(F) LIFECYCLE GREENHOUSE GAS EMIS-  
8           SIONS.—

9           “(i) IN GENERAL.—The term ‘lifecycle  
10           greenhouse gas emissions’ means, with re-  
11           spect to a transportation fuel, the aggre-  
12           gate quantity of greenhouse gases emitted  
13           per British thermal unit of fuel, as deter-  
14           mined by the Administrator, from produc-  
15           tion through use of the fuel, as calculated  
16           to ensure that any nonrecurring emission  
17           is not amortized over a period of more  
18           than 20 years to ensure that required im-  
19           provements in greenhouse gas emissions  
20           occur within that period.

21           “(ii) INCLUSIONS.—The term  
22           ‘lifecycle greenhouse gas emissions’ in-  
23           cludes emissions associated with—

1 “(I) feedstock production (includ-  
 2 ing direct and indirect land-use  
 3 changes) or extraction;

4 “(II) feedstock refining;

5 “(III) distribution of a fuel; and

6 “(IV) use of a fuel.”; and

7 (3) by inserting after subparagraph (H) (as re-  
 8 designated by paragraph (1)) the following:

9 “(I) TRANSPORTATION FUEL.—The term  
 10 ‘transportation fuel’ means fuel used to power  
 11 motor vehicles, nonroad engines, or aircraft.”.

12 (c) ADVANCED CLEAN FUEL PROGRAM.—Section  
 13 211(o) of the Clean Air Act (42 U.S.C. 7545(o)) is amend-  
 14 ed by adding at the end the following:

15 “(11) ADVANCED CLEAN FUEL PERFORMANCE  
 16 STANDARD.—

17 “(A) STANDARD.—

18 “(i) IN GENERAL.—Not later than  
 19 January 1, 2010, the Administrator shall,  
 20 by regulation—

21 “(I) establish a methodology for  
 22 use in determining the lifecycle green-  
 23 house gas emissions of all transpor-  
 24 tation fuels in commerce;

1                   “(II) determine the fuel emission  
2 baseline;

3                   “(III) establish a transportation  
4 fuel certification and marketing proc-  
5 ess to determine the lifecycle green-  
6 house gas emissions of conventional  
7 transportation fuels and renewable  
8 fuels being sold or introduced into  
9 commerce in the United States that  
10 allows—

11                   “(aa) for a simple certifi-  
12 cation using default values; and

13                   “(bb) fuel providers to opt  
14 in to the use of a standardized  
15 certification tool that would pro-  
16 vide verifiable and auditable  
17 greenhouse gas ratings for fuels  
18 of the providers through the use  
19 of additional, certified data;

20                   “(IV) in accordance with clause  
21 (ii), establish a requirement applicable  
22 to each fuel provider to reduce the av-  
23 erage lifecycle greenhouse gas emis-  
24 sions per unit of energy of the aggre-  
25 gate quantity of transportation fuel

1 produced, blended, or imported by the  
2 fuel provider to a level that is, to the  
3 maximum extent practicable—

4 “(aa) by not later than cal-  
5 endar year 2011, at least equal  
6 to or less than the fuel emission  
7 baseline;

8 “(bb) by not later than cal-  
9 endar year 2015, 5 percent less  
10 than the fuel emission baseline;  
11 and

12 “(cc) by not later than cal-  
13 endar year 2020, 10 percent less  
14 than the fuel emission baseline;  
15 and

16 “(V) permit alternative reliable  
17 estimation methods to be used for the  
18 purpose of this clause during the first  
19 5 years that the requirement de-  
20 scribed in subclause (IV) is in effect.

21 “(ii) AIR QUALITY IMPACTS.—For the  
22 purpose of this subparagraph, in the case  
23 of any air quality-related adverse lifecycle  
24 impact resulting from emissions from  
25 motor vehicles using renewable fuel, the

1 Administrator shall ensure, by regulation  
2 promulgated under this title, that gasoline  
3 containing renewable fuel does not result  
4 in—

5 “(I) average per-gallon motor ve-  
6 hicle emissions (measured on a mass  
7 basis) of air pollutants in excess of  
8 those emissions attributable to gaso-  
9 line sold or introduced into commerce  
10 in the United States in calendar year  
11 2007; or

12 “(II) a violation of any motor ve-  
13 hicle emission or fuel content limita-  
14 tion under any other provision of this  
15 Act.

16 “(iii) CALENDAR YEAR 2025 AND  
17 THEREAFTER.—For calendar year 2025,  
18 and each fifth calendar year thereafter, the  
19 Administrator, in consultation with the  
20 Secretary of Agriculture and the Secretary  
21 of Energy, shall revise the applicable per-  
22 formance standard to require that each  
23 fuel provider shall additionally reduce, to  
24 the maximum extent practicable, the aver-  
25 age lifecycle greenhouse gas emissions per

1 unit of energy of the aggregate quantity of  
2 transportation fuel introduced by the fuel  
3 provider into commerce in the United  
4 States.

5 “(iv) REVISION OF REGULATIONS.—In  
6 accordance with the purposes of the  
7 Lieberman-Warner Climate Security Act of  
8 2008, the Administrator may, as appro-  
9 priate, revise the regulations promulgated  
10 under clause (i) as necessary to reflect or  
11 respond to changes in the transportation  
12 fuel market or other relevant cir-  
13 cumstances.

14 “(v) METHOD OF CALCULATION.—In  
15 calculating the lifecycle greenhouse gas  
16 emissions of hydrogen or electricity (when  
17 used as a transportation fuel) pursuant to  
18 clause (i)(I), the Administrator shall—

19 “(I) include emissions resulting  
20 from the production of the hydrogen  
21 or electricity; and

22 “(II) consider to be equivalent to  
23 the energy delivered by 1 gallon of  
24 ethanol the energy delivered by—

1                   “(aa) 6.4 kilowatt-hours of  
2                   electricity;

3                   “(bb) 132 standard cubic  
4                   feet of hydrogen; or

5                   “(cc) 1.25 gallons of liquid  
6                   hydrogen.

7                   “(vi) BEST AVAILABLE SCIENCE.—In  
8                   carrying out this paragraph, the Adminis-  
9                   trator shall use the best available scientific  
10                  and technical information to determine the  
11                  lifecycle greenhouse gas emissions of trans-  
12                  portation fuels derived from—

13                  “(I) planted crops and crop res-  
14                  idue produced and harvested from ag-  
15                  ricultural land that—

16                  “(aa) has been cleared and,  
17                  if the land was previously wet-  
18                  land, drained before the date of  
19                  enactment of this paragraph, and  
20                  that is actively managed or fallow  
21                  and nonforested; and

22                  “(bb) is in compliance with  
23                  a conservation plan that meets  
24                  the standards, guidelines, and re-  
25                  strictions under subtitles B and



1 C of chapter 1 of subtitle D of  
2 title XII of the Food Security  
3 Act of 1985 (16 U.S.C. 3831 et  
4 seq.);

5 “(II) planted trees and tree res-  
6 idue from actively-managed tree plan-  
7 tations on non-Federal land that has  
8 been cleared and, if the land was pre-  
9 viously wetland, drained before the  
10 date of enactment of this paragraph;

11 “(III) animal waste material, and  
12 animal byproducts;

13 “(IV) slash and pre-commercial  
14 thinnings from non-Federal forestland  
15 other than—

16 “(aa) old-growth forest or  
17 late successional forest; and

18 “(bb) ecological communities  
19 with a global or State ranking of  
20 critically imperiled, imperiled, or  
21 rare pursuant to a State natural  
22 heritage program;

23 “(V) biomass obtained from the  
24 immediate vicinity of buildings and  
25 other areas regularly occupied by indi-

1                   viduals, or of public infrastructure,  
2                   that is at risk from wildfire;

3                   “(VI) algae;

4                   “(VII) separated food waste or  
5                   yard waste;

6                   “(VIII) electricity, including the  
7                   entire lifecycle of the fuel;

8                   “(IX) 1 or more fossil fuels, in-  
9                   cluding the entire lifecycle of the  
10                  fuels; and

11                  “(X) hydrogen, including the en-  
12                  tire lifecycle of the fuel.

13                  “(vii) EQUIVALENT EMISSIONS.—In  
14                  carrying out this paragraph, the Adminis-  
15                  trator shall consider transportation fuel de-  
16                  rived from cultivated noxious plants, and  
17                  transportation fuel derived from biomass  
18                  sources other than those sources described  
19                  in clause (vi), to have emissions equivalent  
20                  to the greater of—

21                         “(I) the lifecycle greenhouse gas  
22                         emissions; or

23                         “(II) the fuel emission baseline.

24                  “(B) ELECTION TO PARTICIPATE.—An  
25                  electricity provider may elect to participate in

1 the program under this section if the electricity  
2 provider provides and separately tracks elec-  
3 tricity for transportation through a meter  
4 that—

5 “(i) measures the electricity used for  
6 transportation separately from electricity  
7 used for other purposes; and

8 “(ii) allows for load management and  
9 time-of-use rates.

10 “(C) CREDITS.—

11 “(i) IN GENERAL.—The regulations  
12 promulgated to carry out this paragraph  
13 shall permit fuel providers to receive cred-  
14 its for achieving, during a calendar year,  
15 greater reductions in lifecycle greenhouse  
16 gas emissions of the fuel provided, blended,  
17 or imported by the fuel provider than are  
18 required under subparagraph (A)(i)(IV).

19 “(ii) METHOD OF CALCULATION.—  
20 The number of credits received by a fuel  
21 provider as described clause (i) for a cal-  
22 endar year shall be calculated by multi-  
23 plying—

24 “(I) the aggregate quantity of  
25 fuel produced, distributed, or im-

1 ported by the fuel provider in the cal-  
2 endar year; and

3 “(II) the difference between—

4 “(aa) the lifecycle green-  
5 house gas emissions of that  
6 quantity of fuel; and

7 “(bb) the maximum lifecycle  
8 greenhouse gas emissions of that  
9 quantity of fuel permitted for the  
10 calendar year under subpara-  
11 graph (A)(i)(IV).

12 “(D) COMPLIANCE.—

13 “(i) IN GENERAL.—Each fuel provider  
14 subject to this paragraph shall dem-  
15 onstrate compliance with this paragraph,  
16 including, as necessary, through the use of  
17 credits banked or purchased.

18 “(ii) NO LIMITATION ON TRADING OR  
19 BANKING.—There shall be no limit on the  
20 ability of any fuel provider to trade or  
21 bank credits pursuant to this subpara-  
22 graph.

23 “(iii) USE OF BANKED CREDITS.—A  
24 fuel provider may use banked credits under

1 this subparagraph with no discount or  
2 other adjustment to the credits.

3 “(iv) BORROWING.—A fuel provider  
4 may not borrow credits from future years  
5 for use under this subparagraph.

6 “(v) TYPES OF CREDITS.—To encour-  
7 age innovation in transportation fuels—

8 “(I) only credits created in the  
9 production of transportation fuels  
10 may be used for the purpose of com-  
11 pliance described in clause (i); and

12 “(II) credits created by or in  
13 other sectors, such as manufacturing,  
14 may not be used for that purpose.

15 “(E) NO EFFECT ON STATE AUTHORITY  
16 OR MORE STRINGENT REQUIREMENTS.—Noth-  
17 ing in this subsection—

18 “(i) affects the authority of a State to  
19 establish, or to maintain in effect, any  
20 transportation fuel performance standard  
21 or other similar standard that is more  
22 stringent than a standard established  
23 under this paragraph; or

1                   “(ii) supercedes or otherwise affects  
2                   any more stringent requirement under any  
3                   other provision of this Act.”.

4           (d)   WATER   QUALITY   PROTECTION.—Section  
5 211(c)(1) of the Clean Air Act (42 U.S.C. 7545(c)(1)) is  
6 amended—

7           (1) by striking “nonroad vehicle (A) if in the  
8           judgment of the Administrator” and inserting the  
9           following: “nonroad vehicle—

10                   “(A) if, in the judgment of the Adminis-  
11                   trator, any fuel or fuel additive or”;

12           (2) by striking “, or (B) if” and inserting the  
13           following: “; or

14                   “(B) if”; and

15           (3) in subparagraph (A), by striking “air pollu-  
16           tion which” and inserting “air pollution or water  
17           pollution (including any degradation in the quality of  
18           groundwater) that”.



**Calendar No. 742**

110<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

**S. 3036**

**A BILL**

To direct the Administrator of the Environmental Protection Agency to establish a program to decrease emissions of greenhouse gases, and for other purposes.

MAY 21, 2008

Read the second time and placed on the calendar