S.280

Climate Stewardship and Innovation Act of 2007 (Introduced in Senate)

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE- This Act may be cited as the `Climate Stewardship and Innovation Act of 2007'.

(b) TABLE OF CONTENTS- The table of contents for this Act is as follows:

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- Sec. 3. Definitions.

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SEC. 2. PURPOSES.

The purposes of this Act are--

(1) without weakening the economic position of the United States or otherwise imposing hardship on its citizens, to reduce the Nation's greenhouse gas emissions substantially enough and quickly enough between 2007 and 2050 to preserve the feasibility of forestalling catastrophic, manmade global climate change; and

(2) to accomplish that purpose while--

(A) promoting the rapid and widespread deployment of advanced technologies and practices for reducing greenhouse gas emissions;

(B) promoting the economic well-being of low- and middle-income Americans;

(C) keeping good jobs in the United States;

(D) mitigating climate change's impacts on low- and middle-income Americans;

(E) mitigating climate change's impacts on low-income populations abroad; and

(F) mitigating climate change's impacts on wildlife.

SEC. 3. DEFINITIONS.
In this Act:

(1) ADMINISTRATOR- The term `Administrator' means the Administrator of the Environmental Protection Agency.

(2) BASELINE- The term `baseline' means the historic greenhouse gas emission levels of an entity, as adjusted upward by the Administrator to reflect actual reductions that are verified in accordance with--

(A) regulations promulgated under section 101(c)(1); and

(B) relevant standards and methods developed under this title.

(3) CARBON DIOXIDE EQUIVALENTS- The term `carbon dioxide equivalents' means, for each greenhouse gas, the amount of each such greenhouse gas that makes the same contribution to global warming as one metric ton of carbon dioxide, as determined by the Administrator.

(4) COVERED SECTORS- The term `covered sectors' means the electricity, transportation, industry, and commercial sectors, as such terms are used in the Inventory.

(5) COVERED ENTITY- The term `covered entity' means an entity (including a branch, department, agency, or instrumentality of Federal, State, or local government) that--

(A) owns or controls a source of greenhouse gas emissions in the electric power, industrial, or commercial sectors of the United States economy (as defined in the Inventory), refines or imports petroleum products for use in transportation, or produces or imports hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride; and

(B) emits, from any single facility owned by the entity, over 10,000 metric tons of greenhouse gas per year, measured in units of carbon dioxide equivalents, or produces or imports--

(i) petroleum products that, when combusted, will emit,

(ii) hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride that, when used, will emit, or

(iii) other greenhouse gases that, when used, will emit,

over 10,000 metric tons of greenhouse gas per year, measured in units of carbon dioxide equivalents.

(6) DATABASE- The term `database' means the national greenhouse gas database established under section 101.

(7) DIRECT EMISSIONS- The term `direct emissions' means greenhouse gas emissions by an entity from a facility that is owned or controlled by that entity.

(8) FACILITY- The term `facility' means a building, structure, or installation located on any 1 or more contiguous or adjacent properties of an entity in the United States.

(9) GREENHOUSE GAS- The term `greenhouse gas' means--

(A) carbon dioxide;
(B) methane;
(C) nitrous oxide;
(D) hydrofluorocarbons;
(E) perfluorocarbons; and
(F) sulfur hexafluoride.

(10) INDIRECT EMISSIONS- The term `indirect emissions' means greenhouse gas emissions that are--

(A) a result of the activities of an entity; but
(B) emitted from a facility owned or controlled by another entity.


(12) LEAKAGE- The term `leakage' means--

(A) an increase in greenhouse gas emissions by one facility or entity caused by a reduction in greenhouse gas emissions by another facility or entity; or
(B) a decrease in sequestration that is caused by an increase in sequestration at another location.

(13) PERMANENCE- The term `permanence' means the extent to which greenhouse gases that are sequestered will not later be returned to the atmosphere.

(14) REGISTRY- The term `registry' means the registry of greenhouse gas emission reductions established under section 101(b)(2).

(15) SECRETARY- The term `Secretary' means the Secretary of Commerce.

(16) SEQUESTRATION-

(A) IN GENERAL- The term `sequestration' means the capture, long-term separation, isolation, or removal of greenhouse gases from the atmosphere.
(B) INCLUSIONS- The term `sequestration' includes--

(i) agricultural and conservation practices;
(ii) reforestation;
(iii) forest preservation ; and
(iv) any other appropriate method of capture, long-term separation, isolation, or removal of greenhouse gases from the atmosphere, as determined by the Administrator.

(C) EXCLUSIONS- The term `sequestration' does not include--

(i) any conversion of, or negative impact on, a native ecosystem; or
(ii) any introduction of non-native species.
(17) SOURCE CATEGORY- The term `source category' means a process or activity that leads to direct emissions of greenhouse gases, as listed in the Inventory.

(18) STATIONARY SOURCE- The term `stationary source' means generally any source of greenhouse gases except those emissions resulting directly from an engine for transportation purposes.

**TITLE I--A MARKET TO REDUCE GREENHOUSE GAS EMISSIONS**

**Subtitle A--Tracking Emissions**

**SEC. 101. NATIONAL GREENHOUSE GAS DATABASE AND REGISTRY ESTABLISHED.**

(a) ESTABLISHMENT- As soon as practicable after the date of enactment of this Act, the Administrator, in coordination with the Secretary, the Secretary of Energy, the Secretary of Agriculture, and private sector and nongovernmental organizations, shall establish, operate, and maintain a database, to be known as the `National Greenhouse Gas Database', to collect, verify, and analyze information on greenhouse gas emissions by entities.

(b) NATIONAL GREENHOUSE GAS DATABASE COMPONENTS- The database shall consist of--

(1) an inventory of greenhouse gas emissions; and

(2) a registry of greenhouse gas emission reductions and increases in greenhouse gas sequestrations.

(c) COMPREHENSIVE SYSTEM-

(1) IN GENERAL- Not later than 2 years after the date of enactment of this Act, the Administrator shall promulgate regulations to implement a comprehensive system for greenhouse gas emissions reporting, inventorying, and reductions registration.

(2) REQUIREMENTS- The Administrator shall ensure, to the maximum extent practicable, that--

(A) the comprehensive system described in paragraph (1) is designed to--

(i) maximize completeness, transparency, and accuracy of information reported; and

(ii) minimize costs incurred by entities in measuring and reporting greenhouse gas emissions; and

(B) the regulations promulgated under paragraph (1) establish procedures and protocols necessary--

(i) to prevent the double-counting of greenhouse gas emissions or emission reductions reported by more than 1 reporting entity;

(ii) to provide for corrections to errors in data submitted to the database;

(iii) to provide for adjustment to data by reporting entities that have had a significant organizational change (including mergers, acquisitions, and
(iv) to provide for adjustments to reflect new technologies or methods for measuring or calculating greenhouse gas emissions;

(v) to account for changes in registration of ownership of emission reductions resulting from a voluntary private transaction between reporting entities; and

(vi) to clarify the responsibility for reporting in the case of any facility owned or controlled by more than 1 entity.

(3) SERIAL NUMBERS- Through regulations promulgated under paragraph (1), the Administrator shall develop and implement a system that provides--

(A) for the verification of submitted emissions reductions registered under this section;

(B) for the provision of unique serial numbers to identify the registered emission reductions made by an entity relative to the baseline of the entity;

(C) for the tracking of the registered reductions associated with the serial numbers; and

(D) for such action as may be necessary to prevent counterfeiting of the registered reductions.

SEC. 102. INVENTORY OF GREENHOUSE GAS EMISSIONS FOR COVERED ENTITIES.

(a) IN GENERAL- Not later than July 1st of each calendar year after 2010, each covered entity shall submit to the Administrator a report that states, for the preceding calendar year, the entity-wide greenhouse gas emissions (as reported at the facility level), including--

(1) the total quantity of direct greenhouse gas emissions from stationary sources, expressed in units of carbon dioxide equivalents, except those reported under paragraph (3);

(2) the amount of petroleum products sold or imported by the entity and the amount of greenhouse gases, expressed in units of carbon dioxide equivalents, that would be emitted when these products are used for transportation in the United States, as determined by the Administrator under section 121(b);

(3) the amount of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, expressed in units of carbon dioxide equivalents, that are sold or imported by the entity and will ultimately be emitted in the United States, as determined by the Administrator under section 121(d); and

(4) such other categories of emissions as the Administrator determines in the regulations promulgated under section 101(c)(1) may be practicable and useful for the purposes of this Act, such as--

(A) indirect emissions from imported electricity, heat, and steam;

(B) process and fugitive emissions; and
(C) production or importation of greenhouse gases.

(b) COLLECTION AND ANALYSIS OF DATA- The Administrator shall collect and analyze information reported under subsection (a) for use under this title.

SEC. 103. GREENHOUSE GAS REDUCTION REPORTING.

(a) IN GENERAL- Subject to the requirements described in subsection (b)--

(1) a covered entity may register greenhouse gas emission reductions achieved after 1990 and before 2012 under this section; and

(2) an entity that is not a covered entity may register greenhouse gas emission reductions achieved at any time since 1990 under this section.

(b) REQUIREMENTS-

(1) IN GENERAL- The requirements referred to in subsection (a) are that an entity (other than an entity described in paragraph (2)) shall--

(A) establish a baseline; and

(B) submit the report described in subsection (c)(1).

(2) REQUIREMENTS APPLICABLE TO ENTITIES ENTERING INTO CERTAIN AGREEMENTS- An entity that enters into an agreement with a participant in the registry for the purpose of a carbon sequestration project shall not be required to comply with the requirements specified in paragraph (1) unless that entity is required to comply with the requirements by reason of an activity other than the agreement.

(c) REPORTS-

(1) REQUIRED REPORT- Not later than July 1st of the each calendar year beginning more than 2 years after the date of enactment of this Act, but subject to paragraph (3), an entity described in subsection (a) shall submit to the Administrator a report that states, for the preceding calendar year, the entity-wide greenhouse gas emissions (as reported at the facility level), including--

(A) the total quantity of direct greenhouse gas emissions from stationary sources, expressed in units of carbon dioxide equivalents;

(B) the amount of petroleum products sold or imported by the entity and the amount of greenhouse gases, expressed in units of carbon dioxide equivalents, that would be emitted when these products are used for transportation in the United States, as determined by the Administrator under section 121(b);

(C) the amount of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, expressed in units of carbon dioxide equivalents, that are sold or imported by the entity and will ultimately be emitted in the United States, as determined by the Administrator under section 121(d); and

(D) such other categories of emissions as the Administrator determines in the regulations promulgated under section 101(c)(1) may be practicable and useful for the purposes of this Act, such as--

(i) indirect emissions from imported electricity, heat, and steam;
(ii) process and fugitive emissions; and

(iii) production or importation of greenhouse gases.

(2) VOLUNTARY REPORTING- An entity described in subsection (a) may (along with establishing a baseline and reporting emissions under this section)---

(A) submit a report described in paragraph (1) before the date specified in that paragraph for the purposes of achieving and commoditizing greenhouse gas reductions through use of the registry and for other purposes; and

(B) submit to the Administrator, for inclusion in the registry, information that has been verified in accordance with regulations promulgated under section 101(c)(1) and that relates to--

(i) any activity that resulted in the net reduction of the greenhouse gas emissions of the entity or a net increase in sequestration by the entity that were carried out during or after 1990 and before the establishment of the database, verified in accordance with regulations promulgated under section 101(c)(1), and submitted to the Administrator before the date that is 4 years after the date of enactment of this Act; and

(ii) with respect to the calendar year preceding the calendar year in which the information is submitted, any project or activity that resulted in the net reduction of the greenhouse gas emissions of the entity or a net increase in net sequestration by the entity.

(3) PROVISION OF VERIFICATION INFORMATION BY REPORTING ENTITIES- Each entity that submits a report under this subsection shall provide information sufficient for the Administrator to verify, in accordance with measurement and verification methods and standards developed under section 104, that the greenhouse gas report of the reporting entity---

(A) has been accurately reported; and

(B) in the case of each voluntary report under paragraph (2), represents--

(i) actual reductions in direct greenhouse gas emissions--

(1) relative to historic emission levels of the entity; and

(2) after accounting for any increases in indirect emissions described in paragraph (1)(C)(i); or

(ii) actual increases in net sequestration.

(4) FAILURE TO SUBMIT REPORT- An entity that participates or has participated in the registry and that fails to submit a report required under this subsection shall be prohibited from using, or allowing another entity to use, its registered emissions reductions or increases in sequestration to satisfy the requirements of section 121.

(5) INDEPENDENT THIRD-PARTY VERIFICATION- To meet the requirements of this section, an entity that is required to submit a report under this section may---

(A) obtain independent third-party verification; and

(B) present the results of the third-party verification to the Administrator.
(6) AVAILABILITY OF DATA-

(A) IN GENERAL- The Administrator shall ensure that information in the database is--

(i) published; and

(ii) accessible to the public, including in electronic format on the Internet.

(B) EXCEPTION- Subparagraph (A) shall not apply in any case in which the Administrator determines that publishing or otherwise making available information described in that subparagraph poses a risk to national security or discloses confidential business information that can not be derived from information that is otherwise publicly available and that would cause competitive harm if published.

(7) DATA INFRASTRUCTURE- The Administrator shall ensure, to the maximum extent practicable, that the database uses, and is integrated with, Federal, State, and regional greenhouse gas data collection and reporting systems in effect as of the date of enactment of this Act.

(8) ADDITIONAL ISSUES TO BE CONSIDERED- In promulgating the regulations under section 101(c)(1) and implementing the database, the Administrator shall take into consideration a broad range of issues involved in establishing an effective database, including--

(A) the data and information systems and measures necessary to identify, track, and verify greenhouse gas emissions in a manner that will encourage private sector trading and exchanges;

(B) the greenhouse gas reduction and sequestration measurement and estimation methods and standards applied in other countries, as applicable or relevant;

(C) the extent to which available fossil fuels, greenhouse gas emissions, and greenhouse gas production and importation data are adequate to implement the database; and

(D) the differences in, and potential uniqueness of, the facilities, operations, and business and other relevant practices of persons and entities in the private and public sectors that may be expected to participate in the database.

(d) ANNUAL REPORT- The Administrator shall publish an annual report that--

(1) describes the total greenhouse gas emissions and emission reductions reported to the database during the year covered by the report;

(2) provides entity-by-entity and sector-by-sector analyses of the emissions and emission reductions reported;

(3) describes the atmospheric concentrations of greenhouse gases;

(4) provides a comparison of current and past atmospheric concentrations of greenhouse gases; and

(5) describes the activity during the year covered by the period in the trading of greenhouse gas emission allowances.
SEC. 104. MEASUREMENT AND VERIFICATION.

(a) STANDARDS-

(1) IN GENERAL- Not later than 1 year after the date of enactment of this Act, the Administrator shall establish by rule, in coordination with the Secretary, the Secretary of Energy, and the Secretary of Agriculture, comprehensive measurement and verification methods and standards to ensure a consistent and technically accurate record of greenhouse gas emissions, emission reductions, sequestration, and atmospheric concentrations for use in the registry.

(2) REQUIREMENTS- The methods and standards established under paragraph (1) shall include--

   (A) a requirement that a covered entity use a continuous emissions monitoring system, or another system of measuring or estimating emissions that is determined by the Administrator, in consultation with the Secretary, to provide information with precision, reliability, accessibility, and timeliness similar to that provided by a continuous emissions monitoring system where technologically feasible;

   (B) establishment of standardized measurement and verification practices for reports made by all entities participating in the registry, taking into account--

      (i) protocols and standards in use by entities requiring or desiring to participate in the registry as of the date of development of the methods and standards under paragraph (1);

      (ii) boundary issues, such as leakage;

      (iii) avoidance of double counting of greenhouse gas emissions and emission reductions;

      (iv) protocols to prevent a covered entity from avoiding the requirements of this Act by reorganization into multiple entities that are under common control; and

      (v) such other factors as the Administrator, in consultation with the Secretary, determines to be appropriate;

   (C) establishment of methods of--

      (i) estimating greenhouse gas emissions, for those cases in which the Administrator, in consultation with the Secretary, determines that methods of monitoring, measuring or estimating such emissions with precision, reliability, accessibility, and timeliness similar to that provided by a continuous emissions monitoring system are not technologically feasible at present; and

      (ii) reporting the accuracy of such estimations;

   (D) establishment of measurement and verification standards applicable to actions taken to reduce, avoid, or sequester greenhouse gas emissions;

   (E) in coordination with the Secretary of Agriculture, standards to measure the results of the use of carbon sequestration and carbon recapture technologies, including--
(i) soil carbon sequestration practices; and

(ii) forest preservation and reforestation activities that adequately address the issues of permanence, leakage, and verification;

(F) establishment of such other measurement and verification standards as the Administrator, in consultation with the Secretary, the Secretary of Agriculture, and the Secretary of Energy, determines to be appropriate;

(G) establishment of standards for obtaining the Administrator's approval of the suitability of geological storage sites that include evaluation of both the geology of the site and the entity's capacity to manage the site; and

(H) establishment of other features that, as determined by the Administrator, will allow entities to adequately establish a fair and reliable measurement and reporting system.

(b) REVIEW AND REVISION- The Administrator, in consultation with the Secretary, shall periodically review, and revise as necessary, the methods and standards developed under subsection (a).

(c) PUBLIC PARTICIPATION- The Administrator shall--

(1) make available to the public for comment, in draft form and for a period of at least 90 days, the methods and standards developed under subsection (a); and

(2) after the 90-day period referred to in paragraph (1), in coordination with the Secretary of Energy, the Secretary of Agriculture, and the Secretary, adopt the methods and standards developed under subsection (a) for use in implementing the database.

(d) EXPERTS AND CONSULTANTS- 

(1) IN GENERAL- The Administrator may obtain the services of experts and consultants in the private and nonprofit sectors in accordance with section 3109 of title 5, United States Code, in the areas of greenhouse gas measurement, certification, and emission trading.

(2) AVAILABLE ARRANGEMENTS- In obtaining any service described in paragraph (1), the Administrator may use any available grant, contract, cooperative agreement, or other arrangement authorized by law.

Subtitle B--Mandating Emissions Reductions

SEC. 121. COVERED ENTITIES MUST SUBMIT ALLOWANCES FOR EMISSIONS.

(a) IN GENERAL- Beginning with calendar year 2012--

(1) each covered entity in the electric generation, industrial, and commercial sectors shall submit to the Administrator one tradeable allowance for each metric ton of greenhouse gases, measured in units of carbon dioxide equivalents, that it emits from stationary sources, except those described in paragraph (2);

(2) each producer or importer of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride that is a covered entity shall submit to the Administrator one tradeable
allowance for each metric ton of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, measured in units of carbon dioxide equivalents; that it produces or imports and that will ultimately be emitted in the United States, as determined by the Administrator under subsection (d); and

(3) each petroleum refiner or importer that is a covered entity shall submit one tradeable allowance for each unit of petroleum product it sells that will produce one metric ton of greenhouse gases, measured in units of carbon dioxide equivalents, as determined by the Administrator under subsection (b), when used for transportation.

(b) DETERMINATION OF TRANSPORTATION SECTOR AMOUNT- For the transportation sector, the Administrator shall determine the amount of greenhouse gases, measured in units of carbon dioxide equivalents, that will be emitted when petroleum products are used for transportation.

(c) EXCEPTION FOR CERTAIN DEPOSITED EMISSIONS- Notwithstanding subsection (a), a covered entity is not required to submit a tradeable allowance for any amount of greenhouse gas that would otherwise have been emitted from a facility under the ownership or control of that entity if--

(1) the emission is deposited in a geological storage facility approved by the Administrator under section 104(a)(2)(G); and

(2) the entity agrees to submit tradeable allowances for any portion of the deposited emission that is subsequently emitted from that facility.

(d) DETERMINATION OF HYDROFLUOROCARBON, PERFLUOROCARBON, AND SULFUR HEXAFLUORIDE AMOUNT- The Administrator shall determine the amounts of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, measured in units of carbon dioxide equivalents, that will be deemed to be emitted for purposes of this Act.

SEC. 122. COMPLIANCE.

(a) SOURCE OF TRADEABLE ALLOWANCES USED- A covered entity may use a tradeable allowance to meet the requirements of this section without regard to whether the tradeable allowance was allocated to it under subtitle D of this title or acquired from another entity or the Climate Change Credit Corporation established under section 201.

(b) VERIFICATION BY ADMINISTRATOR- At various times during each year, the Administrator shall determine whether each covered entity has met the requirements of this section.