The Lieberman-Warner Climate Security Act (S. 2191)

(as reported from the Senate Environment and Public Works Committee on December 5)

<u>A Summary of the Core of the Bill</u>

The purposes of the Lieberman-Warner Climate Security Act (the CSA) are: "(1) to establish the core of a federal program that will reduce United States greenhouse gas emissions substantially enough between 2007 and 2050 to avert the catastrophic impacts of global climate change; and (2) to accomplish that purpose while preserving robust growth in the United States economy, creating new jobs, and avoiding the imposition of hardship on United States citizens."

Title I of the CSA places a declining cap on U.S. emissions of five primary greenhouse gases (CO_2, methane, nitrous oxide, sulfur hexafluoride, and perfluorocarbons – which the bill designates as Group I greenhouse gases) and on U.S. emissions of the sixth primary greenhouse gas (hydrofluorocarbons – which the bill designates at the Group II greenhouse gas) from one type of industrial activity.

Title X of the bill places a separate declining cap on U.S. emissions of hydrofluorocarbons from all other industrial activities that emit that gas.

For all six gases, the CSA uses a common unit of measurement, called a "CO_2 equivalent." A CO_2 equivalent is the quantity of a greenhouse gas that EPA determines makes the same contribution to global warming as one metric ton of CO_2.

Title I of the CSA requires owners and operators of the following types of facilities and entities to submit to EPA, at the end of each year, a number of emission allowances that accounts for all of the CO_2 equivalents that the facility emitted in that year:

- any facility that uses more than 5,000 tons of coal in a year;
- any facility that is a natural gas processing plant or that produces natural gas in the State of Alaska, or any entity that imports natural gas (including liquefied natural gas);
- any facility that in any year produces, or any entity that in any year imports, petroleum- or coal-based liquid or gaseous fuel, the combustion of which will emit greenhouse gas, assuming no capture and sequestration of that gas;
- any facility that in any year produces for sale or distribution, or any entity that in any year imports, more than 10,000 carbon dioxide equivalents of greenhouse gas, assuming no capture and destruction or sequestration of that gas; and
- any facility that in any year emits as a byproduct of the production of hydrochlorofluorocarbons more than 10,000 carbon dioxide equivalents of hydrofluorocarbons.

Title X of the CSA requires owners and operators of the following types of entities to submit to EPA, at the end of each year, a number of emission allowances that accounts for all of the CO_2 equivalents that the entities emitted in that year:

- any entity that produced hydrofluorocarbons in the U.S. for sale in the U.S. in 2005; and

- any entity that imported hydrofluorocarbons or products or equipment containing hydrofluorocarbons into the U.S. in 2005.

The facilities and entities that are covered by either the Title I cap or the Title X cap currently are responsible for 87% of U.S. greenhouse gas emissions. The two declining caps bring those emissions down to 4% below the year 2005 level in 2012 and then gradually down to 71% below the 2005 level by 2050.

A Subtitle-by-Subtitle Summary of the Bill

TITLE I CAPPING GREENHOUSE GAS EMISSIONS

Subtitle A Tracking Emissions

Subtitle A establishes an emissions monitoring and reporting system. It charges EPA with the task of running the system and making the data available to the public.

Subtitle B Reducing Emissions

Subtitle B directs EPA to establish a separate quantity of emission allowances, called an Emission Allowance Account, for each calendar year from 2012 through 2050. In a table, the subtitle identifies the size of each year's Account (i.e., the number of emission allowances issued for each year). The size of the 2012 Account is 5.775 billion allowances. That is the number of CO_2 equivalents of greenhouse gases that the facilities covered by Title I emitted in 2005. The number of allowances in any given year's account is 106 million fewer than the number in the immediately preceding year's account (106 million is 1.8% of 5.775 billion). The size of the 2050 Account is 1.732 billion allowances. That is 70% below the number of CO_2 equivalents of greenhouse gases that the facilities covered by Title I emitted in 2005.

EPA will create, at the inception of the program, all of the emission allowances that will exist over the entire 38-year life of the program. Each emission allowance will have a unique serial number that will include the calendar year for which it was created.

Subtitle B requires the owner or operator of each covered facility, at the end of each calendar year beginning in 2012 and ending in 2050, to submit to EPA one emission allowance for each CO_2 equivalent of:

- Group I greenhouse gas that was emitted by the use of coal by that covered facility during the preceding year;

- Group I greenhouse gas that will, assuming no capture and sequestration of that gas, be emitted from the use of any petroleum- or coal-based liquid or gaseous fuel that was produced or imported by that covered facility during the preceding year;

- Group I greenhouse gas that was produced for sale or distribution or imported by that facility during the preceding year;

- Group II greenhouse gas that was emitted as a byproduct of hydrochlorofluorocarbon production; and

- Group I greenhouse gas that will, assuming no capture and destruction or sequestration of that gas, be emitted –

  - from the use of natural gas that was, by that covered facility, processed, imported, or produced and not reinjected into the field, or

  - from the use of natural gas liquids that were processed or imported by that covered facility during the preceding year.

EPA is required immediately to retire all emission allowances submitted to it pursuant to the compliance obligation.

Owners or operators of covered facilities using coal are allowed to discount from their submission requirement the number of metric tons of CO_2 that they geologically sequester. Owners or operators of other types of covered facility are not allowed to perform such discounting. Instead, they receive an emission allowance back from EPA for each metric ton of CO_2 that they geologically sequester.

Entities also receive an allowance back from EPA for each carbon dioxide equivalent of greenhouse gas that they either destroy or use at as a feedstock in a matter that prevents its release to the atmosphere.

TITLE II MANAGING AND CONTAINING COSTS EFFICIENTLY

Subtitle A Trading

The CSA allows anyone to buy, hold, sell, and retire emission allowances.

Subtitle B Banking

The CSA allows the owners and operators of covered facilities to hold onto allowances as long as they wish. That way, an owner or operator will be able to maintain its own reserve of allowances.

Subtitle C Borrowing

Subtitle C directs EPA to promulgate regulations allowing the owner or operator of any covered facility to satisfy up to 15% of a given year's compliance obligation with allowances borrowed from future years. The CSA specifies a 10% annual interest rate on such "loans" and imposes a five-year limit on the term of any loan.

Subtitle D Offsets

Subtitle D directs EPA, in conjunction with the Secretary of Agriculture, to promulgate regulations allowing the owner or operator of any covered facility to satisfy up to 15% of a given year's compliance obligation with offset allowances generated within the United States.

Offset allowances are in addition to the emission allowances that comprise the annual Accounts (caps). Offset allowances come into being when EPA certifies that a non-covered facility has done something that either has reduced the number of CO_2 equivalents that the facility otherwise would have emitted in that calendar year or has increased the number of CO_2

equivalents that the facility otherwise would have captured from the atmosphere and stored in that calendar year.

Subtitle D specifies procedures and standards that EPA must use in certifying, monitoring, and enforcing offsets. The procedures and standards spelled out in the subtitle are intended to ensure that the activities certified as offsets by EPA will actually be verified, monitored, permanent, enforced, and additional.

Subtitle E International Emission Allowances

Subtitle E directs EPA to promulgate regulations allowing the owner or operator of any covered facility to satisfy up to 15% of a given year's compliance obligation with international allowances. An "international allowance" is an emission allowance purchased from a foreign greenhouse gas emissions trading market that EPA certifies as having comparable integrity to the U.S. market, and that exists by virtue of national emissions caps that EPA finds to be of comparable stringency to the caps established by the CSA.

Subtitle F Carbon Market Efficiency Board

Subtitle F establishes a Carbon Market Efficiency Board, comprising seven members serving staggered, fourteen-year terms, plus a scientific advisor to ensure that steps taken by the board are informed by expertise with climate change and its impacts on the environment. All members are appointed by the President with the advice and consent of the Senate. The Board is tasked with monitoring the emissions trading market and periodically reporting to the President and Congress on its operations.

In the first two years of the cap-and-trade program, the Board is authorized to increase – above the default 15% – both the percentage of a covered facility's annual compliance obligation that may be satisfied with borrowed emission allowances and the percentage that may be satisfied with offsets. The Board may only do that, however, in the event the average daily closing price of an emissions credit exceeds the upper end of the range predicted by the Congressional Budget Office prior to the start of the program.

In all subsequent years, the Board is authorized – but only as needed to avoid significant harm to the economy – to temporarily increase the amount that covered entities may borrow, lengthen the payback period of loans, and/or lower the interest rate on loans; and to loosen a given year's economy-wide emissions cap by as much as 5%, provided that subsequent years' caps are tightened sufficiently to ensure that the cumulative emissions reductions over the long term remain unchanged.

The Board is subject to the Freedom of Information Act. Each year, the Government Accountability Office reviews the Board's efficacy in fulfilling its purposes and duties.

TITLE III ALLOCATING AND DISTRIBUTING ALLOWANCES

Subtitle A Auctions

Subtitle A directs EPA, within 180 days of enactment, to take 5% of the allowances in the 2012 Account, 3% of the allowances in the 2013 Account, and 1% of the allowances in the 2014 Account and give them to the Climate Change Credit Corporation for early auctioning.

Subtitle A also directs EPA to allocate portions of each year's Emission Allowance Account to the Climate Change Credit Corporation for annual auctioning. A table in Subtitle A specifies the portions to be allocated for this purpose each year. The portion in 2012 is 21.5% (an additional 5% of the 2012 Account having been allocated for early auctioning). The portion rises steadily each year and then plateaus at 69.5% from 2031 through 2050.

Subtitle B Early Action

Subtitle B directs EPA, within 2 years of enactment, to take 5% of the allowances in the 2012 Account, 4% of the allowances in the 2013 Account, 3% of the allowances in the 2014 Account, 2% of the allowances in the 2015 Account, and 1% of the allowances in the 2016 Account and allocate them to owners and operators of covered facilities as reward for actions taken since January 1, 1994 to reduce greenhouse gas emissions. 1994 is the year in which the Rio Treaty took effect, thereby obligating the US to reduce its greenhouse gas emissions.

Subtitle B directs EPA to promulgate regulations setting forth procedures and criteria for distributing the early action allowances to individual owners and operators of covered facilities.

Subtitle C States

Subtitle C directs EPA each year to allocate 1% of that year's Account to state governments that have demonstrated that at least 90% of new buildings constructed in the state comply with the energy efficiency building codes established under Subtitle B of Title V;

The subtitle directs EPA each year to allocate an additional 2% of that year's Account to states that have adopted "decoupling" regulations for any electric and natural gas utilities in the state. Decoupling policies enable energy utilities to recover just as much money for investments in demand reduction measures as they recover for investments in satisfying demand.

Subtitle C directs EPA each year to allocate an additional 2% of that year's Account to state governments that have imposed on covered facilities within their borders greenhouse gas emissions limitations more stringent than those established by the CSA.

Subtitle C directs EPA each year to allocate an additional 4.5% of that year's Account to all state governments. EPA is directed to distribute the allowances to individual state governments based on the following formula: 1/3 based on Low Income Home Energy Assistance Program expenditures; 1/3 based on population; 1/3 based on "quantity of carbon dioxide embedded within coal that is mined, natural gas that is processed, and petroleum that is refined within the boundaries of a State, as determined by the Secretary of Energy."

States are directed to use for increasing recycling rates 5 percent of the allowances that they receice under Subtitle C.

States are directed to retire or use for the following purposes at least 90 percent of the allowances that they receive under Subtitle C:

- to mitigate impacts on low-income energy consumers;
- to promote energy efficiency (including support of electricity and natural gas demand reduction, waste minimization, and recycling programs);
- to promote investment in nonemitting electricity generation technology;
- to improve public transportation and passenger rail service and otherwise promote

reductions in vehicle miles traveled;

- to encourage advances in energy technology that reduce or sequester greenhouse gas emissions;
- to address local or regional impacts of climate change, including the relocation of communities displaced by the impacts of climate change;
- to collect, evaluate, disseminate, and use information necessary for affected coastal communities to adapt to climate change (such as information derived from inundation prediction systems);
- to mitigate obstacles to investment by new entrants in electricity generation markets and energy-intensive manufacturing sectors;
- to address local or regional impacts of climate change policy, including providing assistance to displaced workers;
- to mitigate impacts on energy-intensive industries in internationally competitive markets;
- to reduce hazardous fuels, prevent wildland fire, and suppress wildland fire;
- to fund rural, municipal, and agricultural water projects that are consistent with sustainable use of water resources; or
- to fund any other purpose that the states determine to be necessary to mitigate any negative economic impacts as a result of global warming or new regulatory requirements resulting from the CSA.

Subtitle C directs EPA each year to allocate an additional 0.5% of that year's Account to a Program for Tribal Communities to deliver assistance to those tribal communities within the borders of the U.S. that face disruption or dislocation as a result of global climate change.

Finally, Subtitle C directs EPA each year to allocate an additional 1% of that year's Account to states to operate, expand, and increase the efficiency of mass transit systems.

Subtitle D Electricity Consumers

Subtitle D directs EPA each year to allocate 9% of that year's Account to the load serving entities that have a regulatory or contractual obligation to deliver electricity to retail consumers. EPA is directed to distribute the allocated allowances to each individual load serving entity in proportion to the amount of electricity that the entity sells. The load serving entities are directed to use the value of the allowances for two purposes only: "(1) to mitigate economic impacts on low- and middle-income energy consumers, including by reducing transmission charges or issuing rebates; and (2) to promote energy efficiency on the part of energy consumers."

Subtitle E Natural Gas Consumers

Subtitle E directs EPA each year to allocate 2% of that year's Account to the natural gas local distribution companies that have a regulatory or contractual obligation to deliver natural gas to retail consumers. EPA is directed to distribute the allocated allowances to each individual natural gas local distribution company in proportion to the amount of natural gas that the entity sells. The natural gas local distribution companies are directed to use the value of the allowances for two purposes only: "(1) to mitigate economic impacts on low- and middle-income energy consumers; and (2) to promote energy efficiency on the part of energy consumers."

Subtitle F Bonus Allowances for Carbon Capture and Geologic Sequestration

Subtitle F directs EPA, within three years of enactment, to take 4% of the allowances in the Accounts for years 2012 through 2030 and place them into a Bonus Allowance Account. EPA is directed to allocate the allowances as reward for firms that actually inject CO_2 into geological formations. The number of bonus allowances that a firm receives for injecting a metric ton of CO_2 underground starts out at 4.5 in 2012 and gradually decreases.

Subtitle G Domestic Agriculture and Forestry

Subtitle G directs EPA each year to allocate 5% of that year's Account to the Secretary of Agriculture, who is directed to use the allowances to reward US farmers and foresters that adopt practices that increase the storage of CO_2 in plants and soils. The Secretary of Agriculture is directed to promulgate regulations to manage the distribution of allowances to farmers and foresters. The subtitle prohibits a single activity from both being certified as an offset and receiving allowances under this subtitle.

Subtitle G requires that 0.5 of the 5 percentage points of emission allowances allocated to this program be directed at projects to reduce nitrous oxide emissions through soil management or to reduce methane emissions from enteric fermentation and manure.

Subtitle H International Forest Protection

Subtitle H directs EPA each year to allocate 2.5% of that year's Account for reducing the rate of tropical deforestation in other nations. The subtitle sets out the structure of a distribution and verification program to be overseen by EPA, the State Department, the Department of Interior, and the Department of Agriculture.

Subtitle I Transition Assistance

Subtitle I directs EPA to allocate set percentages of each year's Account to facilities and entities within different industrial sectors. The subtitle sets forth the annual percentages in a table. In 2012, fossil fuel-fired electric power generating facilities receive 19%, rural electric cooperatives receive an additional 1%, energy intensive manufacturing facilities receive 10%, importers and producers of petroleum-based fuel receive 2%, and hydrofluorocarbon producers receive 2%. Those percentages eventually decline to zero in 2031.

Subtitle J Reducing Methane Emissions From Landfills and Coal Mines

Subtitle J directs EPA each year to allocate 1% of that year's Account to a program for achieving real, verifiable, additional, permanent, and enforceable reductions in emissions of methane from landfills and coal mines.

TITLE IV AUCTIONS AND USES OF AUCTION PROCEEDS

Subtitle A Funds

Subtitle A establishes seven new funds in the US Treasury: (1) the Energy Assistance Fund; (2) the Climate Change Worker Training Fund; (3) the Adaptation Fund, (4) the Climate Change and National Security Fund; (5) the Bureau of Land Management Emergency Firefighting Fund; (6) the Forest Service Emergency Firefighting Fund; and (7) the Climate Security Act Management Fund.

Subtitle B Climate Change Credit Corporation

Subtitle B establishes the Climate Change Credit Corporation. The Corporation shall have a board of directors composed of five individuals appointed by the President, by and with the advice and consent of the Senate, for staggered five-year terms.

Each year, the Comptroller General reviews the efficacy of the Corporation's programs and expenditures, as well as the efficacy of the projects funded through the Corporation.

Subtitle C Auctions

Subtitle C directs the Corporation, within one year of enactment, to begin auctioning the allowances allocated to it for early auctioning under Subtitle A of Title III. It directs the Corporation to have completed auctioning the last of those allowances by the end of 2011. The subtitle directs the Corporation to devote all the proceeds of the early auctions to the Energy Technology Deployment Program established under Subtitle D of Title IV.

Subtitle C directs the Corporation, 330 days before the start of each calendar year, to auction all of the allowances allocated to it for annual auctioning under Subtitle A of Title III. Proceeds from the auction are first used: (1) to fund the activities that the CSA directs the Environmental Protection Agency and other federal agencies to undertake; and (2) to ensure adequate funds for emergency firefighting at the Bureau of Land Management and the Forest Service. It directs the Corporation to devote 52% of the remaining proceeds from those annual auctions, each and every year from 2012 through 2050, to the Energy Technology Deployment Program established under Subtitle D of Title IV. It directs the Corporation to deposit 2% of the proceeds each year into the existing Energy Transformation Acceleration Fund administered by the Advanced Research Projects Agency within the Department of Energy. It directs the Corporation to deposit 18% of the proceeds each year into the Energy Assistance Fund, 18% into the Adaptation Fund, 5% into the Climate Change Worker Training Fund, and 5% into the Climate Change and National Security Fund.

Subtitle D Energy Technology Deployment

Subtitle D spells out, in detail, a series of financial incentive programs designed to accelerate the development and deployment of sustainable energy technologies, low-carbon electricity technologies (including engineering integration costs), advanced bio-fuels such as cellulosic ethanol, CO_2 capture and storage systems, electric and plug-in hybrid electric vehicles, and high-efficiency consumer products.

Subtitle E Energy Consumers

Subtitle E directs that all funds deposited into the Energy Assistance Fund under Subtitle A of Title IV shall be made available to the Low Income Home Energy Assistance Program (LIHEAP) (50%), the Weatherization Assistance Program for Low-Income Persons (25%), and a new Rural Energy Assistance Program (25%).

Subtitle F Climate Change Worker Training Program

Subtitle E directs that all funds deposited into the Climate Change Worker Training Fund under Subtitle A of Title IV shall be used by the Department of Labor to fund a new workforce education, training, and placement program spelled out in the subtitle.

Subtitle G Adaptation Program for Natural Resources in United States and Territories

Subtitle G directs that all funds deposited into the Adaptation Fund under Subtitle A of Title IV shall be used as follows:

- 35% shall be made available to the Interior Department, and subsequently made available to states and tribal governments, through the Wildlife Conservation and Restoration Account established under the Pittman-Robertson Wildlife Restoration Act.
- 19% shall be made available to the Interior Department for use in funding endangered species, migratory bird, and other fish and wildlife programs.
- 5% shall be made available to the Interior Department for adaptation activities carried out under cooperative grant programs.
- 1% shall be made available to Indian tribes to carry our adaptation activities through the tribal wildlife grants program of the Fish and Wildlife Service.
- 5% shall be made available to the Secretary of Agriculture for use in funding adaptation activities carried out on national forests and national grasslands under the jurisdiction of the United States Forest Service or pursuant to the cooperative Wings Across the Americas Program.
- 5% shall be made available to EPA for use in restoring large-scale freshwater and estuarine ecosystems and large-scale estuarine ecosystems.
- 10% shall be made available to the Army Corps for use in restoring large-scale freshwater and estuarine ecosystems.
- 10% shall be made available to the Commerce Department for use in funding adaptation activities to protect, maintain, and restore coastal, estuarine, and marine resources, habitats, and ecosystems.
- 10% shall be made available to wildlife adaptation through the Land and Water Conservation Fund.

Subtitle H International Climate Change Adaptation and National Security Program

Subtitle H directs that all funds deposited into the Climate Change and National Security Fund under Subtitle A of Title IV shall be made available to a program established by State Department and administered by the U.S. Agency for International Development, to:

- protect the national security of the United States where such interest can be advanced by minimizing, averting, or increasing resilience to potentially destabilizing climate change impacts;
- support the development of national and regional climate change adaptation plans in least developed countries;
- support the deployment of technologies that would help least developed countries reduce their greenhouse gas emissions and respond to destabilizing impacts of climate change;

- provide assistance to least-developed countries and small island developing states with national or regional climate change adaptation plans in the planning, financing, and execution of adaptation projects;

- support investments and capital to reduce vulnerability related to climate change and its impacts, including but not limited to drought, famine, floods, sea level rise, shifts in agricultural zones or seasons, shifts in range that affect economic livelihoods, and refugees and internally displaced persons;

- support climate change adaptation research in or for least developed countries; and

- encourage the identification and adoption of appropriate low-carbon and efficient energy technologies in least-developed countries.

Subtitle I Emergency Firefighting Programs

Subtitle I directs that all auction proceeds deposited into the emergency firefighting funds established under Subtitle A shall be used to pay for Bureau of Land Management and Forest Service wildland fire suppression activities in excess of normal, non-emergency fire suppression.

TITLE V ENERGY EFFICIENCY

Subtitle A Appliance Efficiency

Subtitle A incorporates the strengthened energy efficiency standards for residential boilers, space heaters, and air conditioners that the House passed this summer as part of its energy bill.

Subtitle B Building Efficiency

Subtitle B incorporates the strengthened model energy efficiency rule for building codes that the House passed this summer as part of its energy bill. Adoption and enforcement of the strengthened model rule makes a state eligible for allowances under one of the 1% set-asides established under Subtitle C of Title III.

TITLE VI GLOBAL EFFORT TO REDUCE GREENHOUSE GAS EMISSIONS

Title VI closely tracks the international trade measure that appears in the Bingaman-Specter climate bill, S.1766.

Under this provision, the Executive Branch is directed, upon the CSA's enactment, to intensify its efforts to convince other nations to start reducing their greenhouse-gas emissions. If, eight years after the enactment of the U.S. program, it is determined that a given major emitting nation has not taken comparable action, the President at that time is authorized to require that importers of greenhouse-gas-intensive manufactured products (steel, aluminum, etc.) from that nation submit emissions credits of a value equivalent to that of the credits that the US system effectively requires of domestic manufacturers.

TITLE VII REVIEWS AND RECOMMENDATIONS

Title VII directs EPA to commission from the National Academy of Sciences (NAS) a report to be delivered to Congress every three years. The report will contain a broad review of the latest scientific information on the current and future: emissions and concentrations of greenhouse gases, temperature trends, and impacts of climate change. It will also examine the impact that the CSA's technology deployment programs are having, and to determine whether advanced climate-friendly energy technologies are deploying quickly enough to enable the US economy to comply with CSA's emissions caps without suffering hardship. It will analyze the performance of the CSA in ensuring that the Land and Water Conservation Fund receives funds sufficient to carry out its purposes, and whether the Bureau and Land Management and the Forest Service receive funds sufficient to suppress wildland fire effectively. Finally, it will address: (1) whether the cap-and-trade system is functioning properly; (2) whether the emissions trading market is liquid, transparent, and relatively free of dangerous volatility; (3) whether US emissions are coming down as projected; (4) whether atmospheric greenhouse gas emissions are stabilizing, on account of US and overseas emissions trends; (5) whether any of the allocations or uses of auction proceeds should be changed; (6) in particular whether there should be established for renewable electricity generation a bonus allowance system similar to the one established under Subtitle F of Title III for carbon capture and geological sequestration; (7) whether additional measures are required to protect low- and moderate- income Americans to cope with cost changes; and (8) in particular whether additional measures are required to reduce aviation emissions. NAS will be tasked with recommending additional measures to achieve the purposes of this act, based on its findings.

Title VIII also directs EPA to submit to Congress in 2012 the agency's own report indicating: (1) the latest scientific information and data relevant to the health effects of mercury emissions from coal-fired electric power generating facilities; (2) the state of the technology designed to reduce mercury emissions from coal combustion, including the efficacy of the technology with respect to each coal type; and (3) the extent to which the implementation of this Act is assisting in bringing concentrations of particulate matter and ozone into line with National Ambient Air Quality Standards.

Title VII then directs EPA to conduct and submit to Congress recommendations for further Congressional action based upon the NAS studies and the EPA study described above, including: (1) expansion of the definition of the term "covered facility" under the Act; (2) expansion of the scope of the Act's compliance obligation; (3) adjustment of the number of emission allowances comprising the Emission Allowance Account for 1 or more calendar years under the Act; (4) establishment of policies for reducing greenhouse gas emissions over and above those policies established under the Act; and (5) establishment of policies for reducing nationwide emissions into the atmosphere of sulfur dioxide, nitrogen oxides, and mercury in excess of the reductions resulting from the implementation of the Act.

Title VII directs the President to submit to Congress in 2020 a bill based on a consensus report that a task force of agency heads chaired by the EPA Administrator prepare based on the recommendations submitted by EPA in 2019.

Finally, Title VII directs EPA, in consultation with several other agencies, to perform regionally-specific analyses of the new infrastructure, safety, health, land-use planning, and coastal inundation prediction policies that will be necessary to enable the US to adapt to the degree of climate change that now is inevitable.

TITLE VIII FRAMEWORK FOR GEOLOGIC SEQUESTRATION OF CARBON DIOXIDE

Title VIII initiates a series of rulemakings, geological surveys, technical reviews, and panels of legal experts designed to pave the way for the rollout of a national infrastructure for taking CO_2 from power plants, through pipelines, to injection wells, and then deep underground.

TITLE IX MISCELLANEOUS

The first section of Title IX authorizes the President to suspend the provisions of the bill in the event of a national emergency.

The second section makes the actions that EPA takes pursuant to the CSA subject to the administrative procedures and judicial review provisions of the Administrative Procedures Act and the Clean Air Act.

The third section makes clear that states are not preempted from enacting and enforcing greenhouse gas emission reduction requirements that are at least as stringent as the federal ones.

TITLE X CONTROL OF HYDROFLUOROCARBON CONSUMPTION

Title X places a separate declining cap on the consumption and importation of hydrofluorocarbon (HFC) consumption and importation into the U.S. The first capped year is 2010. The 2050 cap is 70% below the 2010 cap.

HFC consumption allowances are allocated among U.S. importers and producers of HFCs starting in 2010, the first capped year. By 2031, however, all HFC consumption allowances are withheld for auction.

The proceeds of the auction are used to support the following purposes:

- a program to recover and destroy the maximum economically recoverable chlorofluorocarbons, halons, and other substances that have significant ozone depletion potential and global warming potential;
- a program of incentives for consumer purchases of refrigeration and cooling equipment that contains refrigerants with no or low global warming potential and that is energy efficient;
- a program to support the development and deployment of hydrofluorocarbons with low global warming potential, and energy efficient technologies, equipment, and products containing or using hydrofluorocarbons; and
- the programs receiving auction proceeds under Title IV.

HFC consumption allowances may not be traded with the emission allowances established under Title I.

TITLE XI AMENDMENTS TO CLEAN AIR ACT

Title XI includes two sections that extend to the greenhouse gas qualities of HFCs policies that Congress previously added to the Clean Air Act for the ozone-depleting qualities of chlorofluorocarbons. The first such policy is a national recycling and emission reduction program for the chemicals. The second policy relates to the servicing of motor vehicle air conditioners.

The final section of Title XI amends the Clean Air Act to direct EPA to promulgate a low greenhouse gas fuel performance standard that will achieve a 5 percent reduction in aggregate lifecycle greenhouse gas emissions per unit of energy in US fuel by 2015, and a 10 percent reduction by 2020.