WORLD RESOURCES INSTITUTE

Summary of S. 2191 – Lieberman-Warner Climate Security Act of 2008 Manager's Substitute Amendment

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Table of Contents **Page**

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Below is a summary of S.2191 Manager's substitute amendment released on May 21, 2008. The substitute reflects a substantially revised version of S.2191. This summary is not exhaustive but does cover nearly all sections of the bill. It is divided into relevant cap and trade design element categories with references to appropriate sections. Language in italics indicates changes from S.2191 as reported out of EPW.

CAPS, COVERAGE AND COMPLIANCE

Targets and timetables: *Non-HFC cap unchanged. HFC cap language revised.*

- S. 2191 establishes two separate caps. These caps are compared to the most recent EPA GHG inventory published in April 2008 and the EIA Annual Energy Outlook 2008.
    - TITLE II. Cap on covered sources of non-HFC gases starts at ~4 percent below 2005 levels in 2012.
        - Reduces at a constant annual rate to reach:
            - ~18 percent below 2005 levels in 2020
            - ~71 percent below 2005 levels in 2050
    - TITLE XV. Cap on the consumption of HFCs starts at 289 Million tonnes of CO2e in 2012. The initial cap has not changed.
        - *Revisions in the substitute now direct the Administrator to set the cap in subsequent years with maximum reductions set as follows:*
            - *15 percent below 2012 levels in 2020*
            - *45 percent below 2012 levels in 2030*
            - *70 percent below 2012 levels between 2040 and 2050*
            - Note that the administrator may set the caps above these levels.
- Preliminary estimates of total U.S. GHG emission reductions[1] under the entire program established under the substitute are as follows:

    - 17-19 percent reduction below 2005 levels in 2020 (4-6 percent below 1990)
    - 57-63 percent reduction below 2005 levels in 2050 (50-57 percent below 1990)

[1] Key estimate assumptions and caveats: Total GHG reduction estimates are highly dependent on assumptions of growth in uncovered emissions and use of cost containment mechanisms. Projections of growth in uncovered emissions are based on EIA and EPA analyses of S.2191. The larger reduction estimate in 2020 is derived from EIA while the smaller estimate is derived from EPA. In 2050, the larger reduction estimate is derived from EPA and the smaller estimate is derived from EIA. Figures include estimates of reductions that take place outside the cap due to international and domestic set asides for agriculture and forestry. Estimates do not include the potential effects of the cost containment auction, banking or borrowing. Such mechanisms could result in far fewer near term reductions. These estimates assume maximum stringency for the HFC cap.

Point of regulation (Sec. 4(14)**.**)**:** *unchanged except natural gas language which is now more comprehensive.* In general, regulated GHGs account for approximately 87 percent of 2006 U.S. emissions as compared to the most recent EPA GHG Inventory. Point of regulation is:

- Downstream regulation of coal at all facilities which use more than 5,000 short tons of coal.
- Upstream regulation of petroleum refiners, natural gas processors, importers of natural gas and coal or petroleum based fuels and chemical manufacturers whose products will release greater than 10,000 tons CO_2e of greenhouse gases upon use.
- *Natural gas coverage language is revised and expanded to include gas produced in the outer continental shelf of Alaska*

Compliance obligation (Sec. 202)**.** *Changes include no CO2 sequestration credits in advance of compliance and exclusion of imported petroleum fuels from NAFTA countries that take comparable action. These changes allow for the uniform crediting of avoided emissions and prevent double counting with other international cap and trade programs.*

Covered entities must turn over an allowance or offset allowance for every tonne of GHGs that will be emitted from the use of natural gas or petroleum fuels produced or other non-fossil GHGs produced or coal used in a calendar year. This assumes no sequestration, destruction or retention has occurred.

- One exception is made for liquid or gaseous fuels produced or imported explicitly for use as feedstocks that do not result in any GHG emissions.
- *Petroleum based fuels imported from NAFTA countries that are deemed to have programs as least as stringent as S.2191 are not subject to a compliance obligation. Note that this does not apply to coal or natural gas.*
- Credits against compliance obligations are issued no later than 90 days after a compliance year for the following activities:
    - Destruction of GHGs (not including methane)
    - *GHGs permanently sequestered in geologic formations*
    - Use of GHGs that did not result in emissions (e.g. chemical feedstocks)
    - Export of regulated fuels or GHGs
    - *International flights whose emissions are subject to a foreign country's cap and trade system*
- *Previous versions of S.2191 allowed for geologic sequestration to count as an offset credit that could be distributed in advance of compliance. This mechanism has been eliminated.*
- The Administrator must report to Congress 2 years after enactment on options for increasing the coverage of natural gas under the program.

MARKET OVERSIGHT AND STRUCTURE

Regular auction reserve price *(Sec. 534): A reserve price (auction price floor) of $10/tonne is set for all other auctions of allowances other than the cost containment auction. This reserve price increases by 5 percent per year plus inflation.*

Market oversight (Sec 421): An interagency working group reports to Congress on any proposed regulatory or legislative changes needed to ensure functioning of emission allowance trading markets.

COST CONTAINMENT

Offsets: *The bill now sets an aggregate limit on total offsets allowed in the market, rather than for each entity. Entities may use as many offsets for compliance as they wish but there is now a limit on how many offsets are available for purchase from each of three general categories: Domestic, International and Forest tons. In certain circumstances, international allowances may also be used.*

- ***Domestic offset allowances*** *(Sec. 312). The Administrator will distribute offset allowances in a quantity up to 15 percent of the total quantity of emissions allowances established for each year. (Limit applies to total number of offsets, not to each entity's compliance obligation.)*
    - *If less than the 15 percent limit on domestic offsets is distributed, covered facilities may use **i**nternational allowances and international forest carbon credits to make up the difference between the amount of offsets and the 15 percent permitted. (The combination of all three of these mechanisms is limited to 15 percent of total emissions allowances.)*
    - *If the sum of these three mechanisms does not add up to the allowed 15 percent, the unused portion may be added to the 15 percent limit in the following year.*
    - *Offsets will be issued (at an appropriate discount rate (to be determined by the administrator) for each offset issued under the Regional Greenhouse Gas Initiative (RGGI).*
    - Eligible offset project types (Sec. 313). Offset allowances are limited to (agricultural, forestry, and other land-use-related) projects that reduce GHGs by a method other than reducing combustion of GHG-emitting fuels.
        - *The administrator will issue and periodically revise a list of eligible project categories. (Several potential categories for consideration are listed; previous bill listed categories already determined to be eligible.)*

- ***International offset allowances*** *(Sec. 321)**. The Administrator will distribute international offset allowances equal to up to 5 percent of the total quantity of emissions allowances for each year.*

- *If less than the 5 percent limit on international offsets is distributed, covered facilities may use international allowances to make up the difference between the amount of offsets and the 5 percent permitted.*
- *If the sum of these two mechanisms does not add up to the allowed 5 percent, the unused portion may be added to the 5 percent limit in the following year.*
- *Rules for international offsets should take into account UNFCCC protocols, but CDM approval is not required.*
- *International offsets shall not come from a project at a facility that competes directly with a U.S. facility.*

- ***International forest offset allowances*** *(Sec. 1325). The Administrator will distribute a quantity of international forest offset allowances of up to 10 percent of the total quantity of emissions allowances for each year.*
  - *If less than the 10 percent limit on international offsets is distributed, covered facilities may use international allowances to make up the difference between the amount of offsets and the 10 percent permitted.*
  - *Forest offsets may be generated from reductions in deforestation and forest degradation as compared to caps or reference scenarios established by foreign countries. The administrator must list and periodically update a list of eligible countries.*
  - *The administrator must periodically review the performance of this program.*
  - *10 years after enactment, the administrator may discount offset credits generated from countries that have not reduced total emissions from forests.*

- ***International Allowances*** *(Sec. 322) are permitted if limits on domestic and/or international offsets are not met.* In order to be used for compliance, international allowances much be issued by a foreign country pursuant to a governmental program with mandatory absolute limits on GHGs either in the country or in one or more industry sectors in the country. Program must be of "comparable stringency" to S.2191.

- ***Agriculture and Forestry Program*** *(Sec. 332). Allowances shall be distributed specifically for creating methodologies, tools and support for new domestic agriculture and forestry offset project types ("New Methodology Incubator").*

Banking (Sec. 511): Allowances may be saved and submitted in any year in the future at full value. [No change from previous bill.]

Borrowing (Sec. 521): Allowances may be borrowed from a future "source year," no more than five years in the future. The borrower's compliance obligation in the future source year is then increased by 10 percent for each borrowed allowance for each year since the borrowed allowances were used. *There has been a slight adjustment to interest calculation from previous bill, but otherwise this section is the same.*

Carbon Market Efficiency Board (CMEB) (Sec. 431): The CMEB may carry out one or more of the following "emergency off ramps":

- increase amount that covered facilities may borrow from the future;
- expand the period from which allowances may be borrowed;
- increase quantity of international allowances submitted by regulated entities;
- increase quantity of domestic allowances submitted by regulated entities;
- *Two measures were previously available to the CMEB but are no longer included:*
    - *Reduce the interest rate for borrowed allowances*
    - *Expand total quantity of emission allowances by borrowing against the total allowable quantity of allowances in future years. This function is now carried out through the cost-containment auction mechanism.*

Cost-Containment Auction *(Sec. 532-539): In December of each calendar year, a cost-containment auction is held at which allowances are offered for sale. The cost-containment auction starting price is set by the President in 2012 at no lower than $22 and no higher than $30,and increases by the rate of inflation plus 5 percent each year.*

- *The Administrator will establish a pool of allowances for this auction by taking 6 billion allowances established for the years 2030-2050. The quantity taken from each year in the years 2031-2050 shall be greater than that from in the previous year by a constant amount.*
- *Any allowances not sold at a minimum price in the "regular auction" will also be added to the cost-containment auction pool.*
- *The 2012 cost-containment auction will be limited to 450 million allowances. In each subsequent year, the number of allowances to be auctioned decreases by 1 percent.*
- *70 percent of proceeds from the cost-containment auction shall be used to achieve additional GHG reductions from sources not covered by the cap.*
- *30 percent of proceeds shall be deposited into the Climate Change Consumer Assistance Fund which could be used for low-income tax cuts.*
- *Oldest allowances are auctioned first. From 2022-2027, the Administrator shall remove from the cost-containment pool any allowance that has remained in the pool for more than 9 years and that was initially established for a calendar year that is fewer than ten years in the future.*
- *If the pool is ever exhausted, of after the year 2027 the Administrator shall conduct no more cost-containment auctions.*

Potential Implications of cost containment mechanisms When considering the potential environmental outcomes of the cost containment mechanism included in the substitute amendment the following points should be kept in mind:

- If the cost containment auction reserve were to be fully depleted, emission reduction targets post-2028 would be more stringent than specified
- If all cost containment mechanisms in the substitute are applied, the result could be almost no change in U.S. as compared to business as usual

- These potential effects could be diminished by the effects of complementary policies and allowance distribution components of the bill
- WRI intends to explore these issues further in forthcoming analyses

ALLOWANCE VALUE DISTRIBUTION

Structure - S. 2191's distribution of allowance value has been significantly changed since the bill was released from committee. Beyond changes to the amount of allowances distributed to particular entities, the general framing of allowance value distribution has been restructured. Changes include:

- *The distinction between auction and free allocation is diminished. The focus is now on directing allowance value to specific intended purposes.*
- *All traces of the "Climate Change Credit Corporation" have been removed. Instead, the EPA administrator will conduct any required "regular" auctions and will deposit all proceeds into specifically designated funds under the Department of Treasury.*
- *Any recipient of direct allocations can now opt to consign their allowances to the regular auction and receive the cash proceeds. This change should allow greater liquidity and reduce uncertainty in the market.*

General Overview of Allowance Distribution – Below is a brief summary of changes within various categories of allowance distribution. For a detailed, section by section review of allowance distribution please see Appendix 1. Note that all allowance amounts for 2030 and onward do not include reductions in amounts that may occur due to allocation and exhaustion of the cost containment auction reserve.

- **Transition assistance to regulated entities and industry:** In general, these allocations have remained fairly similar to those in S. 2191, although natural gas processors now also receive their own allocation and HFC producers no longer receive an allocation.

- **Public benefit**: Additional allowances are set-aside to reduce taxes, mitigate the budget impacts of the bill and provide federal assistance to workers through a variety of mechanisms. In all, the sum of allowances dedicated to these public benefits has been expanded.

- **Agriculture and forestry:** In general, allocations to support reduced emissions from changes in agriculture and forestry practices have been slightly reduced.

- **States:** The substitution for S. 2191 has expanded the amount of money going to states, tribes and local governments. These allowances and funds may be used for a variety of activities that generally fall into three categories: adaptation, transition assistance and reducing GHG emissions

- **Technology:** Technology funding, especially funding of new electricity technologies in the later years of the program, have been decreased in the substitute. Among the changes, dedicated support has been promised to renewable energy, clean commercial fleets and international technology deployment. In addition, funding to reduce methane emissions from coal mines and landfills has been cut.

- **Adaptation –** S. 2191 continues to provide money to support domestic (through states and tribes) and international adaptation efforts. The total amount of allowances distributed for adaptation has been increased however, in the early years of the program, the annual amounts have decreased.

INTERNATIONAL ENGAGEMENT AND COMPETITIVENESS

- **International negotiations** (Sec. 1313) As in the version passed by committee, the manager's substitute emphasizes the need for negotiations to promote a strong global effort to significantly reduce GHG emissions.
- **International competitiveness** (Sec. 1311) An International Reserve Allowance requirement is imposed on major trading partners that are deemed to not be taking "comparable action."
    - *This program would be administered by a specially created "international climate change commission." The commission is tasked with determining which countries and products would be subject to the international allowance requirement.*
    - *Importers of covered products from listed countries must begin submitting reserve allowances as early as 2014 rather than the year 2020.*
    - *The list of covered products has been expanded and now includes iron, steel, steel mill products, aluminium, cement, glass, pulp, paper, chemicals, industrial ceramics or any other manufactured product sold in bulk that generates, in the course of manufacture, a substantial quantity of direct and/or indirect GHG emissions.*
- **Links to international caps** S. 2191 allows a one-way link with overseas mandatory cap and trade programs through the acceptance of international allowances under certain circumstances. For more details, see cost-containment section on offsets.
- **Technology deployment, adaptation and forest conservation** S.2191 provides funding to support *international technology deployment,* adaptation efforts, and forestry conservation. For more details, please see allowance value distribution.

STATE AND REGIONAL PROGRAMS

Treatment of state authority, existing programs and cooperation within the federal program: *Changes include allowance allocation, transition from state to federal program and a study on state-federal program interaction*

- **Federal GHG registry** (Sec. 112.**)**. Requires the administrator to exceed or conform to state GHG reporting protocols and publish any differences between a federal registry and the multi-state climate registry.
- ***Allow for transition*** *from California's AB32 statute and the Regional Greenhouse Gas Initiative (RGGI) to a federal program. Though a phase out of state programs is NOT mandated, two mechanisms facilitate a transition from these programs to a federal program if states do eliminate their carbon markets. These mechanisms are as follows:*
    - *Sec. 312 (b)(4). Offsets issued under RGGI may be transferred into the federal program*
    - *Sec. 704. Under the early action allowance allocation pool, entities that purchased RGGI or AB 32 allowances may receive early action allowances at a quantity necessary to compensate for the cost of purchasing state allowances.*
    - ***Encourage transition*** *(Sec. 625**). States are not eligible for allowances under the state allowance pool established under this section unless they transition their cap and trade programs into the federal program See the allowance allocation section of this summary for an assessment of the amount of allowances available to states and permitted uses of allowances.*
    - *States that have historically achieved greater energy savings and avoided more GHG emissions get more allowances under Sec. 625*
- Sec. 1741. Existing state policies and state authority to limit or avoid GHG emissions are expressly NOT preempted or diminished by this legislation.
- *Sec. 1781. Requires the National Academies of Science to study the potential economic and environmental costs and benefits of state policies that reduce GHG emissions including state and regional cap and trade programs while operating simultaneously under a federal program.*

COMPLEMENTARY POLICIES

Climate Change Technology Board (Title IV, Subtitle D): *CCTB is established as an agency of the Federal Government. Oversees, administers and distributes funds made available under Titles VIII through XI to accelerate commercialization and diffusion of low-and zero-carbon technologies and practices.*

Retail Carbon Credits (Sec. 1761): The Administrator shall establish qualifying levels and requirements for Energy Star certification of retail carbon offsets.

Low Carbon Fuel Standard *(Sec. 1141): The standard is now harmonised with the Renewable Fuels Standard established under the Energy Independence and Security Act of 2007. Due to this harmonisation, targets and timetables have been changed.*

- *Through amendments to the Clean Air Act, the administrator is directed to regulate the lifecycle GHG emissions of transportation fuels.*
    - *Any entity that puts any transportation fuel (on-road, off-road and aviation) into commerce in the U.S. is regulated (primarily, importers, refiners and blenders).*
    - *Targets and timetables have been changed from the previous versions of the bill. They are as follows:*
        - *2005 levels by 2011*
        - *2012 through 2022, 2005 levels minus GHG reductions that result from the annual volumetric biofuel requirements under the EISA Renewable Fuels Standard*
        - *5 percent below 2005 levels by 2023*
        - *10 percent below 2005 levels by 2028*
    - Previous targets were:
        - 5 percent below a yet to be determined baseline by 2015
        - 10 percent below that baseline by 2020.

Nuclear Power: Nuclear power is not explicitly referenced in the bill however, it does appear that new nuclear power plants could receive incentive payments through the allowance allocation pool created under Title IX subtitle A. This subtitle provides funding for new electric power generators that emit zero GHGs. This provision is no different than S.2191 as reported.

Appendix 1

Allowance Distribution Under the Substitute to S.2191 by Section				Total allowances and percentage share by year							
				2012		2020		2030		2050	
Section	Category	Distribution	Use	%	tonnes	%	tonnes	%	tonnes	%	tonnes
331	U.S. Agriculture and forestry	Allocation to farmers and foresters via USDA based on amount of GHG emissions reduced or sequestered.	GHG reductions, increases in sequestration and offset methodology development	4.25	245	4.25	209	4.25	164	4.50	78
542	Transition assistance to workers	Auction with proceeds directed to workers via the Climate Change Worker's Assistance Fund.	Efficiency and Renewable Energy Worker Training Program; Climate Change Worker Adjustment Program; Workforce Training and Safety	1.00	58	2.00	98	3.00	116	3.00	52
551	Transition assistance to carbon intense manufacturers	Allocation direct to energy intensive industries based on combined direct and indirect emissions then to each facility based on electricity use.	No restriction after distribution	11.00	635	11.00	542	1.00	39	0.00	0
561	Transition assistance to fossil fuel electricity generators	Allocation direct to fossil fuel fired electric power generators based on historic emissions. Special distribution for electric cooperatives.	No restriction after distribution	18.00	1040	15.00	739	2.75	106	0.00	0
571	Transition assistance to refiners of petroleum based fuel	Allocation direct to refiners based on historic fuel production and importation.	No restriction after distribution	2.00	116	1.00	49	1.00	39	0.00	0
581	Transition assistance to natural gas processors	Allocation direct to natural gas processors and importers based on historic production and importation	No restriction after distribution	0.75	43	0.75	37	0.75	29	0.00	0
592	Federal program for consumers	Auction with proceeds directed to low income consumers via the Climate Change Consumer Assistance Fund	Relief to low income consumers from increases in energy costs.	3.50	202	6.00	295	12.00	463	15.00	260
611	Partnerships with states to assist electricity consumers	Allocation to electricity consumers via local distribution companies based on historic sales adjusted upwards for efficiency	Relief to low income consumers from increases in energy costs, funding energy efficiency and low carbon distributed generation	9.50	549	9.75	480	10.00	386	10.00	173
611	Partnerships with states to assist natural gas consumers	Allocation to natural gas consumers via local distribution companies based on historic sales adjusted upwards for efficiency	Relief to low income consumers from increases in energy costs, funding energy efficiency and low carbon distributed generation	3.25	188	3.25	160	3.50	135	3.50	61
612	Assisting State Economies That Rely Heavily on Manufacturing and Coal	Allocation directly to states based on 2 equally weighted metrics: emissions that resulted from coal production from 1988 through 1992 and number of manufacturing jobs in the same period	Any of 22 uses specified in Section 625 subsection d. Generally may be used for adaptation, GHG reductions and transition assistance	3.00	173	3.25	160	3.50	135	4.00	69

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Section	Category	Distribution	Use	%	tonnes	%	tonnes	%	tonnes	%	tonnes
621	State and local partnership for mass transit	Auction with proceeds directed to state, regional and local governments and entities via the Transportation Sector Emission Reduction Fund	Improve and expand existing transit service, construct new transit projects, reduce travel demand and increase transportation system efficiency.	1.00	58	2.00	98	2.75	106	2.75	48
624	Energy efficiency and conservation block grant program	Auction with proceeds directed to state, local and tribal governments via the energy efficiency and conservation block grant program	Energy efficiency and conservation programs and projects through the block grant program established under the Energy Independence and Security Act of 2007	2.00	116	2.00	98	2.00	77	2.00	35
625	States that have led in reducing emissions	Allocation directly to states based on historic state investments in GHG reductions and increasing energy efficiency	Any of 22 uses specified in Section 625 subsection d. Generally may be used for adaptation, GHG reductions and transition assistance	4.00	231	5.00	246	8.00	309	10.00	173
631	Partnerships with states, tribes and local governments to adapt to climate change	Allocation directly to states and tribes based on several climate change vulnerability indicators	Planning for and addressing climate change impacts within states and regions as well as assistance to tribes to cope with the impacts of climate change and economic impacts of this act	3.00	173	3.25	160	3.50	135	4.00	69
642	Partnerships with states, tribes and local governments to protect natural resources	Auction with proceeds directed to states and tribes via the state wildlife adaptation fund.	To carry out wildlife adaptation activities in accordance with state plans and to facilitate adaptation activities through land and water acquisition and conservation	2.00	116	2.00	98	4.00	154	4.00	69
702	Recognizing early action	Allocation to private sector entities through the Early Action Program based on verified emission reductions achieved between 1994 and finalization of allowance distribution rules. Allowances may be distributed based on compensation needs to entities that purchased allowances under RGGI or AB 32	No restriction after distribution	5.00	289	1.00	49	0.00	0	0.00	0
811	Efficient buildings program	Allocation to owners of high efficiency buildings via the Climate Change Technology Board based on building performance as compared to certain benchmarks	Rewards for construction of new high efficiency buildings. No restrictions after distribution	0.75	43	0.75	37	0.75	29	0.75	13
821	Super efficient equipment and appliances development program	Allocation to retailers and distributors via the Climate Change Technology Board based on increases in sales.	Rewards for increasing sales of high efficiency appliances and equipment. No restrictions after distribution	0.75	43	0.75	37	0.75	29	0.75	13

Allowance Distribution Under the Substitute to S.2191 by Section				Total allowances and percentage share by year							
				2012		2020		2030		2050	
Section	Category	Distribution	Use	%	tonnes	%	tonnes	%	tonnes	%	tonnes
831	Efficient manufacturing program	Allocation to owners and operators of U.S. manufacturing facilities via the Climate Change Technology Board based on several metrics	Rewards for achieving high levels of efficiency in manufacturing operations. No restrictions after distribution	0.75	43	0.75	37	0.75	29	0.75	13
841	Incentives for renewable energy deployment	Allocation to owners, operators and developers of renewable energy generation facilities in the U.S. via the Climate Change Technology Board based on several metrics	Rewards for start up, expansion and operation of renewable facilities. No restriction after distribution.	4.00	231	4.00	197	4.00	154	1.00	17
913	Low and zero carbon technology deployment	Auction with proceeds directed to generation facilities and suppliers of technology components via the Low and Zero Carbon Electricity Technology Fund as administered by the Climate Change Technology Board based on competitive bidding	Rewards for new zero carbon generation facilities. No restriction after distribution.	1.75	101	1.75	86	2.00	77	1.00	17
921	Advanced energy research	Auction with proceeds directed to the Advanced Research Projects Agency within the Department of Energy	Subject to appropriations funds are to be used for accelerating technology transformation	0.25	14	0.25	12	0.25	10	0.25	4
1012	Kick start for carbon capture and storage	Auction with proceeds directed to developers of commercial scale carbon capture and storage equipped power plants via a Technology Fund administered by the Climate Change Technology Board in a manner that maximizes GHG reductions	Goal to deploy 5 to 10 commercial scale CCS equipped plants using a variety of different coal types.	1.00	58	1.00	49	0.00	0	0.00	0
1021	Incentives for carbon capture and storage deployment	Allocation of bonus allowances to carbon capture and storage equipped facilities based on the amount of CO2 sequestered as long as they meet specific emissions performance standards. Allowances may be distributed for ten years at each facility.	No restriction after distribution	3.00	173	3.00	148	4.00	154	1.00	17
1112	Kick start for clean commercial fleets	Allocation to entities that purchase medium and heavy duty hybrid commercial vehicles based on the magnitude of purchase and vehicle fuel economy	No restriction after distribution	0.50	29	0.00	0	0.00	0	0.00	0
1122	Incentives for manufacturing advanced vehicles	Auction with proceeds directed to vehicle manufacturers via the Advanced Technology Vehicles Manufacturing Incentive Program established under the Energy Independence and Security Act of 2007	Subject to Energy Independence and Security Act restrictions for the incentive program	1.00	58	1.00	49	1.00	39	1.00	17

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				2012		2020		2030		2050	
Section	Category	Distribution	Use	%	tonnes	%	tonnes	%	tonnes	%	tonnes
1131	Incentives for cellulosic biofuel production	Allocation to U.S. producers of cellulosic biofuels on a competitive basis that minimizes costs and maximizes environmental benefits	No restriction after distribution	1.00	58	1.00	49	1.00	39	0.00	0
1212	Federal program to protect natural resources	Auction with proceeds directed to federal agencies via the Bureau of Land Management Emergency Firefighting Fund, the Forest Service Emergency Firefighting Fund, and the Federal Wildlife Adaptation Fund	Fire fighting and suppression on federal lands and fish and wildlife adaptation activities.	3.00	173	2.50	123	4.00	154	5.00	87
1323	International partnerships for capacity building to reduce international deforestation and forest degradation	Allocation to countries based on measures taken, performance and capacity to reduce GHG emissions from forests	Build capacity in foreign countries to reduce emissions from deforestation and forest degradation	1.00	58	1.00	49	1.00	39	1.00	17
1334	International partnerships to deploy clean technology	Auction with the proceeds directed to foreign countries, and entities via the Clean Development Technology Deployment Fund as administered by the International Clean Development Technology Board based on various metrics	Capacity building, funding and assistance for clean technology programs that reduce GHG emissions in eligible countries	0.50	29	0.00	0	0.00	0	0.00	0
1342	International partnerships to adapt to climate change and protect national security	Auction with proceeds directed to developing countries via the International Climate Change Adaptation and National Security Fund as administered by U.S. AID based on various metrics.	Fund adaptation assistance for least developed countries in line with broader development goals	1.00	58	2.00	98	4.00	154	7.00	121
1402	Reducing the deficit	Auction with proceeds directed to the Deficit Reduction Fund	Deficit reduction subject to an appropriation act	5.75	332	8.00	394	13.75	531	16.75	290
1712	Administrative funding	Auction with proceeds directed to the Climate Security Act Administrative Fund	Program administration subject to an appropriation act	0.75	43	0.75	37	0.75	29	1.00	17