



Clean Energy Jobs and American Power Act of 2009

Summary of Energy Efficiency-Related Provisions

Senators John Kerry and Barbara Boxer released the Chairman's mark of the Clean Energy Jobs and American Power Act of 2009 (CEJAPA) on October 23rd, 2009. This climate bill establishes a strong cap-and-trade program to reduce greenhouse gas emissions and authorizes complementary policies and funding to achieve reductions under and beyond the cap, provide transitional assistance, and spur a clean energy economy. If this bill is passed by the Senate Environment and Public Works Committee, it will be combined with related Senate bills, including the Senate Energy Committee's American Clean Energy Leadership Act (S. 1462), before it reaches the Senate floor. Below is a summary of the CEJAPA provisions most germane to energy efficiency.

Bill and Summary Organization:

CEJAPA is organized in two divisions:

- Division A authorizes policies outside the greenhouse gas (GHG) cap-and-trade program for pollution reduction, transition assistance, and adaptation. This summary provides a section-by-section overview of energy efficiency provisions in Division A.
- Division B establishes a GHG cap-and-trade program and allocates free allowances for transition assistance, investment in clean energy, and several programs authorized in division A. This summary provides an overview of Division B.

Division A: Authorizations for Pollution Reduction, Transition, and Adaptation

Title I: Greenhouse Gas Reduction Programs

Subtitle A: Clean Transportation

Section 111: Emissions Standards

This section directs the Environmental Protection Agency (EPA) to create GHG emission standards by 2011 for heavy duty vehicles and engines that are not already covered by current standards, as defined by EPA. It directs EPA to set standards that ensure the greatest achievable emissions reductions and to examine the various classes and categories of non-road vehicles and engines to identify those that both contribute significantly to GHG emissions and have the greatest potential for significant cost-effective reductions in those emissions. It also directs EPA to promulgate by 2013 emission standards for those non-road vehicles and engines that EPA has identi-

fied. It allows EPA to establish rules for trading GHG emission credits among and between various vehicle categories.

Section 112: Greenhouse Gas Emissions Reductions through Transportation Efficiency

This section requires the EPA, in consultation with the Department of Transportation (DOT), to establish within 18 months national goals for reducing GHG emissions from the transportation sector. The goals should be commensurate with the emissions reduction goals set by the rest of this bill. It also requires EPA and DOT to assess progress toward the goals at least every six years, and to examine the contributions to emissions reductions of various measures, including improvements in vehicle ef-

efficiency and greenhouse gas performance of transportation fuels, reductions in vehicle miles traveled, changes in consumer demand and use of transportation management systems and any other greenhouse gas-related transportation policies. It requires EPA and DOT to develop standardized emission models and methodologies.

This section also requires each state and each metropolitan planning organization (MPO) that serves a transportation management area to establish its own emissions reduction targets and strategies within two years of the establishment of EPA and DOT goals. It directs that MPO targets and strategies be based on EPA and DOT models and methodologies, contribute to achieving national goals for reduction in transportation GHG emissions; and include strategies to enhance public transit ridership, walking, bicycling, zoning and land use regulations that support transportation efficiency, travel demand management, surface transportation system operations, intercity rail and bus service, public facilities for electric vehicles, and other efforts that reduce transportation-related GHG emissions.

This section requires DOT to approve a state or MPO's plan if DOT, in consultation with EPA, finds that the plan meets these minimum requirements and that it is likely to achieve the state or MPO's emissions targets (this provision is labeled "Enforcement").

Section 113: Transportation Greenhouse Gas Emissions Reduction Program Grants

This section directs DOT to provide grants to states and MPOs that meet the requirements of Section 112. Up to ten percent of the available funds could support the development and updating of transportation GHG reduction targets, strategies, and plans that states and MPOs are required by Section 112 to create. Up to five percent could be used for administrative expense incurred in carrying out this section. The remaining funds would provide financial assistance to help implement the state and MPO transportation plans. It directs DOT, in consultation with EPA, to develop criteria to consider when distributing the grants, and lays out several criteria to consider, including cost-effectiveness of GHG emissions reductions under the plan. It stipulates that, for any project funded by the grants, states are required to cover 20 percent of the costs.

Section 114: SmartWay Transportation Efficiency Program

This section directs EPA's SmartWay Transportation Efficiency Program to quantify and evaluate the energy consumption and GHG impacts from technologies and strategies in the mobile source sector, including freight carriers. In addition, it directs EPA to demonstrate and promote the benefits of technologies, products, fuels, and operational strategies that reduce energy consumption and emissions through this program. The section also establishes a financing program to award loans and leases to public and private entities to adopt low-GHG technologies and strategies in the mobile source sector. It provides funds for the electrification of freight transportation systems in major national goods movement corridors.

Subtitle D: Water Efficiency

Section 141- WaterSense

This section directs the existing EPA WaterSense program to identify and promote water efficient products, buildings, landscapes, facilities, processes, and services to reduce water use; reduce the strain on water, wastewater, and stormwater infrastructure; conserve energy used to pump, heat, transport, and treat water; and preserve water resources for future generations. This program is modeled after the EPA and DOE's Energy Star program and includes a labeling program. This program is authorized \$7.5 million for fiscal year (FY) 2010, \$10 million for FY11, \$20 million for FY12, and \$50 million for FY13.

Section 142- Federal Procurement of Water Efficient Products

This section directs that federal agencies procure WaterSense or FEMP-designated products when buying water-using products for their buildings and facilities. It requires that these products be clearly identified and prominently displayed in any inventory or listing of products by the General Services Administration (GSA) or the Defense Logistics Agency. This section also directs each Agency to prepare a water efficiency retrofit plan to maximize use of high efficiency equipment when retrofitting its facilities.

Section 143- State Residential Water Efficiency and Conservation Incentives Program

This section allows EPA to award grants to state and local governments, wastewater or sewerage utilities, municipal water authorities, energy utilities, water utilities, and nonprofit organizations to pay up to 50% of the cost of establishing and carrying out a program to provide financial incentives to residential consumers for the purchase of water-efficient products, buildings, landscapes, processes, or services. Allocations are determined based on the population served by each entity; the targeted population of the incentive program, such as general households, low-income households, or first-time homeowners; and the probable effectiveness of the incentive program for that population, among other considerations. This section is authorized at specific amounts between \$100 - \$200 million during FY10-FY14, and adjusted amounts in subsequent years.

Subtitle E: Miscellaneous

Section 151- Office of Consumer Advocacy

This section establishes an Office of Consumer Advocacy and a Consumer Advocacy Advisory Committee within the Federal Energy Regulatory Commission (FERC) to advocate for energy customers on matters concerning rates or service of public utilities and natural gas companies under FERC's jurisdiction. This office would represent consumers at hearings and judicial proceedings, monitor and review customer complaints, investigate utility services and rates, develop means to ensure that interests of energy customers are represented, collect data concerning rates, and prepare and issue reports and recommendations.

Section 152- Clean Technology Business Competition Grant Program

This section allows EPA to provide grants to organizations to conduct business competitions that provide incentives, training, and mentorship to entrepreneurs and start-up companies in the fields of air quality, energy efficiency and renewable energy, transportation, water quality and conservation, green buildings, and waste management throughout the United States. Any 501(c)(3) organization or entity sponsored by a 501(c)(3) organization that is operated as a non-profit is eli-

gible for these grants. This grant program is authorized at \$20 million.

Section 153- Product Carbon Disclosure Program

This section directs EPA to study the feasibility of a national program to measure, report, publicly disclose, and label the carbon content of products and materials sold in the United States. It also directs the EPA to establish, within 36 months of the enactment of the Act, a voluntary national program for the disclosure of products' carbon content. The EPA would provide incentives for program participation, implement a public outreach campaign to increase consumer awareness, and develop protocols for measuring and verifying a product's carbon content.

Section 154- State Recycling Programs

This section establishes a State Recycling Program to support recycling and associated source reduction programs in states. The program would provide incentives for recycling-related technologies that reduce or avoid GHG emissions, and for energy-efficiency projects for transportation fleets and equipment that are used to collect and sort recyclable material, among other things.

This section directs states to distribute at least one-fourth of the funding made available to them in this section to county and municipal recycling programs to carry out these goals (unless no such county and municipal programs exist, in which case the funding would remain with the state); at least one-fourth to recycling facilities that also to carry out these goals; and at least one-fourth to manufacturing facilities for the demonstration or deployment of more energy efficient technologies and equipment that would increase the use of recyclable materials.

Section 156- Economic Development Climate Change Fund

This section allows DOE to provide technical assistance, award grants, and enter into contracts with eligible recipients, including economic development for districts, Indian tribes, states, cities, institutions of higher education, and public or private non-profit organizations, to promote energy efficiency projects that enhance economic competitiveness; increase the use of renewable energy resources; support the development

of conventional energy resources to produce alternative transportation fuels, electricity, and heat; develop energy efficient or environmentally sustainable infrastructure; and promote environmentally sustainable economic development practices and models. DOE could also provide assistance, grants, and contracts to support development of energy efficiency and alternative energy development plans, studies, and analyses, including Comprehensive Economic Development Strategies.

Section 158 – Efficient Buildings Program

This section directs EPA to establish and administer the “Efficient Buildings Program” to assist owners of new and renovated buildings that achieve a high efficiency score based on Energy Star or EPA-determined equivalent standards. The program gives priority to projects completed by building owners with a proven track record of excellent energy performance or that result in greenhouse gas reduction benefits not encompassed in the Energy Star program. No appropriations or allowance values are allocated to this program.

Subtitle F: Energy Efficiency and Renewable Energy

Section 163 - Energy Efficiency in Building Codes

This section directs EPA, or such other agency or agencies as designated by the President, in consultation with the National Institute of Standards and Technology, to promulgate regulations establishing building code energy efficiency targets to improve the national average of residential and commercial building energy performance beginning in 2014 and applicable through 2030. This section also directs EPA or the other designated agency or agencies to establish national energy efficiency building codes for residential and commercial buildings to meet the targets in the most cost-effective manner. It allows the agency to promulgate provisions for state adoption of the national building code standards and for certification of state programs. The administering agency is to report on the status of codes, adoption, implementation and compliance, and

federal and state enforcement, as well as on energy use impacts.

Section 164 – Retrofit for Energy and Environmental Performance

This section directs EPA, in consultation with DOE, to establish criteria for voluntary energy and environmental building retrofit programs for commercial and residential buildings, and to develop the Retrofit for Energy and Environmental Performance (REEP) program to implement these criteria. This section specifies the amounts and forms of support that would be provided under this program and would require that REEP funding not exceed 50 percent of the total retrofit cost in each building. The REEP program is funded through allowances given to state and local entities for energy efficiency.

Subtitle G- Emission Reductions from Public Transportation Vehicles

Section 171- Short Title

This section names this subtitle as the “Green Taxis Act of 2009.”

Section 172- State Fuel Economy Regulation for Taxicabs

This section allows states to prescribe fuel economy requirements for taxicabs and similar automobiles, as long as they are at least as stringent as federal requirements.

Section 173- State Regulation of Motor Vehicle Emissions for Taxicabs

This section allows states to adopt and enforce air emission standards from new motor vehicles that are taxicabs and similar vehicles, as long as they are at least as protective of public health and welfare as federal standards. The same eligibility criteria as in Section 172 apply here.

Title II: Research

Subtitle A: Energy Research

Section 201- Advanced Energy Research

This section establishes an EPA program to provide competitive grants to higher education, companies, research foundations, trade and industry research collaborations, and consortia of the above for advanced

energy research. Priority will be given to applications that offer enhancement of U.S. economic and energy security through deployment of energy technologies that reduce foreign energy imports, reduce energy-related GHG emissions, improve energy efficiency in all economic sectors, and ensure that the U.S. maintains a technological lead in developing and deploying advanced energy technologies.

Title III: Transition and Adaptation

Subtitle A: Green Jobs and Worker Transition

Part 1- Green Jobs

Section 301- Clean Energy Curriculum Development Grants

This section allows the Department of Education to award competitive grants to eligible partnerships developing job and career training programs in the fields of clean energy, renewable energy, energy efficiency, climate change mitigation, and climate change adaptation.

Sec. 302: Development of Information and Resources Clearinghouse for Vocational Education and Job Training in Renewable Energy Sectors

This section directs the Department of Labor (DOL), in collaboration with the Department of Education, to develop an internet-based information clearinghouse to aid technical education and job training programs in the renewable energy sectors. The clearinghouse would emphasize programs that cater to high-demand middle-skill trades and would contain a separate section with information for each renewable energy sector, including energy efficiency technical training. This section directs the Secretary of Labor to solicit expertise from organizations in the clean energy sector, including businesses, career and technical schools, institutes of higher education, and other organizations.

Section 303- Green Construction Careers Demonstration Project

This section directs DOL to establish a Green Construction Careers demonstration project to promote middle class careers and quality employment practices

in the green construction sector for targeted workers and to advance efficiency and performance on construction projects. DOL and DOE would identify projects, including residential retrofitting projects, to be assisted by the program and establish terms and conditions of the program.

Subtitle B: International Climate Change Programs

Section 323 – International Clean Energy Deployment Program

This section directs the State Department, in consultation with other agencies designated by the President, to establish a Clean Energy Deployment Program to assist developing countries in activities that reduce, sequester, or avoid GHG emissions, and to encourage those countries to shift toward low-carbon development in compliance with the 1992 United Nations Framework Convention on Climate Change.

Subtitle C: Adapting to Climate Change

Section 381- Water System Mitigation and Adaptation Partnerships

This section directs EPA to establish a water system mitigation and adaptation partnership program to provide funds to states for water system adaptation in response to climate change. Beginning in 2010, states could provide grants to owners or operators of water systems to address climate-related impacts on water quality, supply, and reliability of a region. The funds would be available through a competitive process exclusively for programs and projects of specified purposes outlined in the section.

Division B: Pollution Reduction and Investment

Title I: Reducing Global Warming Pollution

This title establishes, within the Clean Air Act (CAA), a nation-wide cap-and-trade program referred to as the Global Warming Pollution Reduction and Investment Program. Economy-wide greenhouse gas (GHG) emission reduction goals for this title are 3% by 2012, 20% by 2020, 42% by 2030, and 83% by 2050, based on 2005 emissions (added to Section 702 of CAA). All sections in this title refer to amendments to the Clean Air Act, unless otherwise noted as Division A or Division B of CEJAPA.

Greenhouse Gas Cap

The bill directs EPA to oversee a pollution reduction program which would set a declining cap on GHG emissions for regulated entities from 2012 through 2050. The reduction targets for capped sources are based on 2005 emissions, beginning with 3% reductions by 2012, 20% by 2020, 42% by 2030 and 83% by 2050 (Section 703). Regulated entities failing to submit required allowances for GHG emissions would pay twice the fair market value for each ton of excess emissions (Section 723).

Interaction with Existing GHG Reduction Regulation

EPA:

The bill preempts EPA from regulating GHG emissions through the National Ambient Air Quality Standard established in the Clean Air Act (Section 128(g) of Division B).

States:

The bill prohibits states from implementing their own GHG cap-and-trade programs through 2017 (Section 861), although EPA may make grants to state and local pollution control agencies to assist in the implementation of programs established under this bill that address global warming (Section 862).

Scope

The cap established in the bill covers about 85% of U.S. GHG emissions, applying to electric power plants, petroleum producers and importers, large industrial

plants (generally ones that emit at least 25,000 tons of carbon dioxide), natural gas distribution companies, and certain other sources. All entities, except industrial stationary sources and natural gas distribution companies, enter the cap in 2012. Industrial stationary sources enter in 2014, and natural gas distribution companies in 2016 (Section 722(c)).

The bill establishes separate programs to reduce emissions from hydrofluorocarbons (Section 619), perfluorocarbons (Section 714), and black carbon (Section 851).

Price Stability and Cost Control

Trading (Section 724) and Banking (Section 725):

Trading of emissions allowances may occur with some limitations and banking in unlimited quantities. A regulated entity may borrow emission allowances from one year ahead without penalty, and can borrow from two to five years ahead to cover up to 15% of its obligation with restrictions at an 8% annual interest rate. The bill does not identify a governing body for the carbon market, but states the “sense of the Senate” that there should be an integrated oversight program to ensure a well-regulated carbon market (Section 131 of Division B).

Offsets (Section 722(d)):

Covered entities can comply with the emissions cap using verified offsets (GHG reductions outside the scope of the cap) not to exceed an economy-wide total of 2 billion tons per year. Economy-wide, 75 percent of offsets must come from domestic sources and 25 percent from abroad unless EPA determines that insufficient domestic offsets are available. After 2018, 1.25 international offset credits are required to meet compliance for 1 emission allowance.

Offset Verification (Sections 731-744):

The President, in consultation with “appropriate federal agencies,” is to establish a program for the issuance of offset credits. The President will develop a

program to qualify eligible project types (Section 733), develop general requirements for offset projects (Section 734), and develop methodologies for the approval (Section 735) and verification (Section 736) of offset projects. The bill specifies minimum additionality requirements to ensure that emissions reductions would not have occurred without the offset project and directs the President to establish a process for accrediting third party verifiers and to establish measurement methodologies. Entities may receive credit for offsets issued by approved state, local, or voluntary offset programs from 2009 until the federal program goes into effect. In addition, domestic entities may receive allowances for documented early reductions from projects begun between 2001 and 2009 (Section 782).

Price Floor (Section 778(d)):

The bill sets a minimum allowance price for federal auctions at \$10 in 2012 (in constant 2005 dollars) rising at a rate of 5% per year. This would constitute a price floor in 2005 dollars of \$15 in 2020 and \$63 in 2050.

Market Stability Reserve (Section 726):

The bill establishes a market stability reserve which sets allowances aside for auction to regulated entities in case market prices increase beyond a predetermined price ceiling. The reserve would be filled by 2% of allowances each year from 2012-2019 and 3% of allowances each year thereafter (Section 721(d)). It will also be supplemented by allowances unsold at auction and by domestic and international offsets purchased through reserve auction proceeds. The minimum strategic reserve auction price is to be \$28 (in constant 2005 dollars) in 2012, increasing at 5 percent plus the rate of inflation for 2013 and 2017, and at a rate of 7 percent plus inflation for the subsequent years. This would constitute an allowance price limit in 2005 dollars of \$28 in 2012, rising to \$86 in 2030 and \$330 in 2050. The maximum percentage of allowances to be auctioned from the strategic reserve in any given year is 15 percent of the total emission allowances from 2012 to 2016 and 25 percent of total emissions allowances after 2017.

Title II: Allowance Distribution

Note on Allowance Allocation Calculations:

Allocations in the following sections are calculated as a percentage of total allowances. Note that Section 771(a) usually lists a higher nominal allocation than those represented here. The bill reserves from the total an increasing number of allowances for deficit reduction, the market stability reserve, and other programs as listed in 771(d). Allocations in 771(a) and (b) are a percentage of the remaining allowances. The totals here also include allocations in 771(d). Calculations are rounded to one-tenth of a percentage point.

Allowance Distribution to Regulated Entities

Section 101, Title I, Division B of CEJAPA; Amended to sections 771-783 of the Clean Air Act. Section numbers refer to the Clean Air Act.

Electricity Local Distribution Companies (Section 771(a); Section 772):

The bill provides allowances to electric local distribution companies (LDCs) for the benefit of their ratepayers according to the following schedule (Note: Up to 14.3% of these allowances will go to merchant coal units and long-term contract generators according to a formula described in Section 722(c)&(d)):

Allowances to Electricity Consumers Section 771(a)(1)			
2012-2013	36.9%	2026	23.3%
2014-2015	32.8%	2027	17.6%
2016-2019	29.5%	2028	11.7%
2020-2025	29.1%	2029	5.9%

Allowances are to be distributed among LDCs according to the following formula: half distributed based on historic emissions; half distributed based on historic electricity use, adjusted by number of consumers every three years after 2015. This section requires that no LDC receive a greater allowance value than necessary to offset any increased electricity costs due to the enactment of the bill; excess allowances are to be redistributed based on the GHG emissions of the remaining LDCs.

Emission allowances distributed to LDCs must be used “exclusively for the benefit of retail ratepayers.” The bill requires that allowances used for consumer rebates not be issued solely based on the quantity of energy used by each ratepayer. Rather, the benefits are to be distributed among ratepayer classes (residential, industrial, etc) based on total deliveries to each class, and divided a fixed rate among ratepayers within each class to the maximum extent practicable. The bill includes an exception for residential and industrial ratepayers, however, which allows electric LDCs to pass on allowance values based on electricity consumption if a fixed rate would result in increased electricity costs. EPA is directed to prescribe measurement, verification, reporting, and method approval guidelines for to assure that LDCs use allowances to benefit retail ratepayers.

Small Electricity Local Distribution Companies (Section 772):

The bill provides allowances to small LDCs according to the following schedule:

Allowances to Consumers of Small LDCs Section 771(a)(1)&(d)(7)			
2012-2025	0.9%	2028	0.4%
2026	0.7%	2029	0.2%
2027	0.6%		

Small LDCs are those that deliver less than 4 million megawatt-hours of electric energy to retail consumers. Allowances are to be distributed among small LDCs based on historic emissions. This section requires that small LDCs use the allowances exclusively to achieve electricity savings, deploy renewable electricity technologies, or provide low-income assistance programs.

Natural Gas Local Distribution Companies (Section 773):

The bill provides allowances to natural gas utilities for the benefit of their ratepayers according to the following schedule:

Allowances to Natural Gas Consumers Section 771(a)(2)			
2016-2019	7.6%	2027	4.5%
2020-2025	7.5%	2028	3.0%
2026	6.0%	2029	1.5%

Allowances are to be distributed among natural gas utilities based on historic natural gas deliveries adjusted by the number of customers in each three year period after 2019. This section requires that the allowances are used “exclusively for the benefit of retail ratepayers,” and that least one-third of the allowances be used for energy efficiency programs for natural gas consumers.

As with electricity, the bill requires that allowances used for consumer rebates not be issued solely based on the quantity of energy used by each ratepayer. Rather, the benefits are to be distributed among ratepayer classes (residential, industrial, etc) based on total deliveries to each class, and divided a fixed rate among ratepayers within each class to the maximum extent practicable.

Home Heating Oil and Propane Consumers (Section 774):

The bill provides allowances to states for the benefit of residential and commercial home heating oil and propane consumers according to the following schedule:

Allowances to Home Heating Oil and Propane Consumers Section 771(a)(3)			
2012-2013	1.6%	2027	0.8%
2014-2015	1.4%	2028	0.5%
2016-2025	1.3%	2029	0.3%
2026	1.0%		

Allowances are to be distributed to states based on the carbon content of home heating oil and propane sold to consumers in each state in the preceding year. States must use at least one-half of these allowances for energy efficiency programs and the remainder for direct financial assistance programs for consumers.

Additional Allocations Specified in the Clean Air Act:

The bill provides allowances for domestic fuel production (Section 775), consumer protection (Section 776), carbon capture and sequestration (Section 780), and carbon-intensive trade-vulnerable industries (Section 761-765).

Allowance Distribution to Programs

Sections 201-215, Title II, Division B of CEJAPA.

State and Local Investment in Energy Efficiency and Renewable Energy (Section 202 of Division B):

The bill provides allowances to state and local governments for renewable energy and energy efficiency according to the following schedule:

Allowances for State and Local Investment in EERE Section 771(a)(9) & (b)(6)			
2012-2013	9.2%	2020-2021	4.6%
2014-2015	7.7%	2022-2029	3.9%
2016	5.4%	2030-2039	3.4%
2017	5.7%	2040-2050	3.3%
2018-2019	4.9%		

The allowances are to be distributed in the following manner (after 1-3 percent is removed from Indian tribes):

- 60 percent to states based on the formula: 30 percent distributed equally among states, 30 percent by population, 30 percent by energy consumption, and 10 percent by an energy efficiency formula to be set by EPA, which would include performance based metrics of each state's success in decreasing energy consumption, adjusted by weather criteria. CEJAPA directs states to use these funds for the following purposes:
 - At least 40 percent to specific energy efficiency programs: implementation and enforcement of building codes, implementation of the energy-efficient manufactured home program, implementation of building performance labeling, low-income community energy efficiency programs (at least 35 percent; including at least 20 percent to energy efficiency in subsidized housing), retrofits for energy and environmental performance (at least 5 percent) and district energy (at least 10 percent) and end-use energy efficiency programs administered by entities other than the state.
 - The remaining 60 percent to a variety of ends, including: renewable energy programs, electricity transmission, end-use energy efficiency programs, Smart Grid

development, the State Energy Program, and the Weatherization Assistance program.

- 15 percent to renewable energy generating companies as decided by EPA (in consultation with DOE) based on the amount of renewable energy generated and the technology used.
- 25 percent to local governments for energy efficiency and conservation block grants, as authorized in the Energy Independence and Security Act of 2007.

Buildings Codes (Section 203 of Division B):

The bill provides allowances to states to be used exclusively for building codes adoption and implementation (see Section 163 of Division A). Section 771(a) provides 0.5% of annual allowances to building codes, but due to the initial reservation described above, the actual allocations would be as follows:

Allowances to Building Codes Section 771(a)(10)	
2012-2029	0.42%
2030-2039	0.36%
2040-2050	0.35%

The allocation would be divided among states based on the formula in Section 202.

Research and Development for Clean Energy (Section 204, 205 of Division B):

The bill provides allowances to DOE for Energy Innovation Hubs to promote commercial application of clean, indigenous alternatives to fossil fuels. DOE would also receive allowances for the Advanced Research Projects Agency – Energy (ARPA-E) to research, develop, and demonstrate new energy and manufacturing technologies. Allowances are provided to research and development according to the following schedule:

Allowances to Research and Development			
Hubs Section 771(a)(11)		ARPA-E Section 771(a)(12)	
2012-2013	0.6%	2012-2013	2.7%
2014-2029	0.4%	2014-2019	1.1%
2030-2050	0.3%	2020-2029	1.0%
		2030-2050	0.9%

Investment in Clean Vehicle Technology (Section 201 of Division B):

The bill provides allowances to the Treasury to establish a Clean Vehicle Technology Fund, according to the following formula:

Allowances for Investment in Clean Vehicle Technology Section 771(a)(8) & (b)(3)	
2012-2017	2.5%
2018-2021	0.8%

75 percent of the funds would be provided to EPA for the distribution of grants to state, local, and tribal agencies; non-profit organizations; and institutions that carry out programs to reduce diesel engine emissions. 20 percent would be made available to EPA to provide assistance for the deployment, integration, and use of advanced technology vehicles. The remaining 5 percent would be provided to DOE to support the development and demonstration of a national transportation low-emissions energy plan and encourage the use of plug-in electric drive vehicles (EDVs) through support of EDV pilot projects and infrastructure development. Additionally, using auction proceeds set aside for early action recognition, EPA must distribute grants to vehicle manufacturers and component suppliers to pay for the refurbishment of their facilities to produce advanced technology vehicles. 25 percent of these grants must go to manufacturers of plug-in EDVs. All grant recipients must comply with current CAFE standards.

Investment in GHG reductions from the Transportation Sector (Section 215 of Division B):

The bill provides allowances to DOT to reduce GHG emissions from the transportation sector. One half of the allowances would be for Transportation GHG Emission Reduction Program grants, established in Sec. 113 of Division A (Sec. 832 of CAA). The other half would be distributed as formula grants to public transportation agencies (and their designated recipients) for projects that demonstrate GHG reductions.

Allowances for GHG Reduction in the Transportation Sector Section 771(b)(10) & (d)(4)			
2012-2013	2.9%	2026	2.4%
2014-2015	2.1%	2027-2029	3.1%
2016-2017	1.9%	2030-2039	2.6%
2018-2025	1.8%	2040-2050	2.5%

Additional Allocations to Programs (Sections 206-216 of Division B):

The bill also provides allowances to fund international clean energy deployment (Section 206, see Section 323 of Division A), international adaptation (Section 207, see Section 324 of Division A), worker training and transition assistance (Sections 208-209, see Sections 311-313 of Division A; Section 213, see Section 132 of Division A), and other adaptation and mitigation programs (Section 212, see Section 370 of Division A; Section 214, see Section 155 of Division A; Section 216, see Section 155 of Division A).

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