



H.R. 2454: The American Clean Energy and Security Act of 2009

Summary (July 14, 2009)

This summary highlights key provisions in H.R. 2454 (as amended), the Waxman-Markey climate change bill, “The American Clean Energy and Security Act of 2009,” as passed by the U.S. House of Representatives on June 26, 2009. *Primary changes between EEI’s May 29, 2009, summary of the House Energy and Commerce Committee-passed bill and the final House-passed bill are noted in boldface italics.*

TITLE I – CLEAN ENERGY

Subtitle A – Combined Efficiency and Renewable Electricity Standard

Section 101. Combined Efficiency and Renewable Electricity Standard

This section amends the Public Utility Regulatory Policies Act (PURPA) to establish a 20-percent mandatory federal combined efficiency and renewable electricity standard (CERES) requirement by 2020 for retail electricity suppliers that sell more than 4 million megawatt-hours (MWh) of electricity to consumers annually. At least three-fourths of the required percentage in any year must be met by the submission of renewable energy credits (RECs). Demonstrated electricity savings (energy efficiency) can be used to meet the remaining portion of the annual combined target.

Required Annual Percentage – A retail electricity supplier shall submit to the Federal Energy Regulatory Commission (FERC) an amount of federal RECs and demonstrated annual electricity savings that, in the aggregate, is equal to the required annual percentage (also described as the “annual combined target”) of the retail electric supplier’s retail base amount of electricity sold to customers. The base amount excludes: (1) hydropower other than qualified hydropower; (2) electricity generated from a nuclear generating unit placed in service after the date of enactment; and (3) the proportion of electricity generated by a fossil fuel-generating unit that is equal to the proportion of greenhouse gases (GHGs) produced by the unit that is captured and sequestered.

Year	Required Annual Percentage
2012	6.0%
2013	6.0%
2014	9.5%
2015	9.5%
2016	13.0%
2017	13.0%
2018	16.5%
2019	16.5%
2020	20.0%
2021 – 2039	20.0%

Definition of Renewable Electricity – Electricity generated from (1) a renewable energy resource: wind, solar, geothermal, renewable biomass, biogas and biofuels derived exclusively from renewable biomass, marine and hydrokinetic (as defined by the Energy Independence and Security Act of 2007 (EISA 2007), 42 U.S.C. §17211), and qualified hydropower (generation achieved from increased efficiency or additions made after January 1, 1988, to a hydroelectric facility placed in service before that date or to generating capacity added to a dam that did not previously have the capacity to generate electricity prior to that date); or (2) other qualifying energy resources: landfill and wastewater treatment gas, coal mine methane and qualified waste-to-energy. *The definition of “renewable biomass” was revised. Section 553 of H.R. 2454 provides that after a study of renewable biomass by the National Academy of Sciences, FERC may modify the non-federal lands portion of the definition of “renewable biomass.”*

Definition of “electricity savings” – Reductions in electricity consumption, relative to business as usual projections, achieved through measures implemented after the date of enactment, limited to customer facility savings, reductions in distribution system losses, combined heat and power (CHP) savings, *recycled energy savings*, and fuel cell savings. *(The definition of CHP system savings was revised to make it clearer – no substantive change.)* Savings achieved from meeting mandatory building codes and efficiency standards are explicitly excluded from use in meeting the requirement. FERC is to establish standards and protocols for defining and measuring electricity savings that can be counted toward the compliance requirement. *Such standards and protocols shall include procedures for documenting measurable and verifiable electricity savings achieved as the result of “market transformation efforts.”* FERC may delegate to a state the authority to review and verify reported electricity savings.

Savings achieved by solar water heating and solar light pipes technology that has the capability to provide measurable data on the electric energy displaced are included. Standards of measurement and verification developed by FERC must ensure that the retail electric supplier claiming the savings played a “significant role” in achieving the savings. In states where a state regulatory commission has designated one or more entities to administer electric ratepayer-funded efficiency programs, electricity savings achieved through such programs are required to be distributed “equitably” among retail electric suppliers.

Energy Efficiency Proportion – A retail electric supplier must submit RECs equal to at least three-fourths of the combined annual percentage. The remainder can be met with demonstrated annual electricity savings from energy efficiency. The governor of a state may petition FERC to increase the allowable energy efficiency proportion of the annual combined percentage for retail electric suppliers in the state to not more than two-fifths, provided that the increase shall be effective only with regard to the portion of a retail electric supplier’s combined annual target that is attributable to electricity sales within the state. If the governor subsequently revokes or revises the request, there is a phase-in period of at least 2 years to provide retail electric suppliers with adequate notice of the change.

Applicability – The CERES requirement applies to any retail electricity supplier that sells at least 4 million MWh of electric energy to retail electric consumers annually. The requirement is applicable to government-owned utilities and electric cooperatives above the size threshold.

Calculation of RECs – One credit is awarded for each MWh of renewable energy generated by each generator after December 31, 2011. The general rule is that the credit is issued to the generator with these exceptions: (1) Credits are issued to retail electricity suppliers, instead of the generator, in proportion to their contribution when renewable electricity is generated with the support of payments from a retail electricity supplier pursuant to a state renewable electricity program (whether through state alternative compliance payments or through payments to a state renewable electricity procurement funds or entity) program; (2) *Where a Central Procurement State [see discussion below] has assumed responsibility for compliance with the percentage requirement, credits are issued directly to the state fund;* (3) *Except in (1) and (2),* when a generator has sold renewable electricity to a retail electricity supplier under a contract for power from a facility placed in service

before the date of enactment and the contract does not provide for determination of ownership of the RECs, FERC shall issue the RECs to the retail electric supplier for the duration of the contract.

Triple credits are awarded for renewable energy generated by a distributed generation facility of 2 megawatts (MW) or less. ***RECs for generation from the combustion of municipal solid waste or construction, demolition, or disaster debris that is included in the definition of renewable biomass or from the gasification or pyrolyzation of such waste only will be issued for electricity generated from qualified waste to energy—the non-fossil biogenic portion of such waste or debris.***

Renewable distributed generation facilities eligible for triple credits also include facilities of 4 MW or less placed in service after the date of enactment.

A “Central Procurement State” (CPS) is a state that, as of January 1, 2009, had adopted and implemented a legally enforceable mandate that, in lieu of requiring utilities to submit RECs or certificates issued based on generation of electricity from (or to purchase or generate electricity from) resources defined by the state as renewable, requires retail electric suppliers to collect payments from retail ratepayers within the state that are used for central procurement by a state agency or public benefit corporation of credits or certificates based on generation of electricity from resources defined by the state as renewable.

A CPS, may, upon submission of a written request by the governor to FERC, assume responsibility for compliance with the percentage requirement on behalf of retail electric suppliers in the state, exclusively with regard to the portion of such retail electric suppliers’ base amount that is sold within the state. If the state assumes responsibility, FERC shall issue directly to the state the federal RECs for any renewable electricity for which the state has centrally procured credits or certificates issued based on generation of such renewable electricity. A CPS also can opt to meet part of the requirement by demonstrated total electricity savings or by making alternative compliance payments into its own renewable energy fund. If a CPS fails to meet the requirement, it loses its responsibility and the individual retail electric suppliers in the state are then prospectively subject to the requirement.

Alternative Compliance Payments – Alternative compliance payments are \$25 (1 credit=1 MWh), or 2.5 cents per kWh, adjusted for inflation beginning in 2010. Alternative compliance payments are to be paid directly to the state in which the retail electricity supplier is located to be used exclusively for deploying renewable technologies and cost-effective energy efficiency measures and programs. Funds from payment of alternative compliance payments are to be distributed to states, provided they are deposited in a dedicated fund for energy efficiency and renewable programs.

As a precondition of making alternative compliance payments, a CPS that has assumed responsibility for compliance shall certify to FERC that making such payments is the lowest-cost alternative to meet the percentage requirement; and the moneys used by the state to make such payments are in addition to any spending that the state, and any separate entity charged with administering the state central procurement requirement, otherwise collectively would direct to the allowable purposes for state funds receiving alternative compliance payments. A CPS that makes alternative compliance payments also must certify to FERC that in using the money, it has, to the extent practicable, maximized the level of deployment of renewable electricity generated (in MWh) and electricity savings per dollar achieved.

Trading and Banking – Credits may be sold, transferred, or exchanged. Credits may be submitted for compliance the year they were issued or in any of the three subsequent years.

Civil Penalties –The penalty for failure to submit sufficient credits is equal to the product of double the alternative compliance payment and the aggregate quantity of RECs, total annual electricity savings, or

equivalent alternative compliance payments that the person failed to submit. *A CPS is not subject to civil penalties.*

Section 102. Clarifying State Authority To Adopt Renewable Energy Incentives

This section authorizes states to set rates for electricity sold under state programs requiring electric utilities to purchase renewable energy (state feed-in tariff programs) that may be above the avoided cost ceiling in PURPA.

Section 103. Federal Renewable Energy Purchases.

A renewable energy purchase requirement is imposed on federal agencies in the U.S. for the calendar years 2012 to 2039. Renewable energy resources are defined as under PURPA section 610 [the renewable and efficiency requirement].

<i>Year</i>	<i>Required Annual Percentage</i>
<i>2012</i>	<i>6.0%</i>
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<i>2015</i>	<i>9.5%</i>
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<i>2017</i>	<i>13.0%</i>
<i>2018</i>	<i>16.5%</i>
<i>2019</i>	<i>16.5%</i>
<i>2020</i>	<i>20.0%</i>
<i>2021-2039</i>	<i>20.0%</i>

Subtitle B – Carbon Capture and Sequestration

Section 111. National Strategy

This section directs the Administrator of the Environmental Protection Agency (EPA), in consultation with the Secretary of the Department of Energy (DOE), *the Secretary of the Department of the Interior (DOI)*, and the heads of other relevant agencies, to submit a report to Congress setting forth a unified and comprehensive strategy to address the key legal, regulatory, and other barriers to the commercial-scale deployment of carbon capture and sequestration (CCS) within 1 year after enactment. This report must identify barriers and regulatory implementation challenges, including those related to approval of state programs and delegation of authority for permitting, as well as recommend actions to evaluate and address these issues further.

Section 112. Regulations for Geologic Sequestration Sites

This section amends Clean Air Act (CAA) title VIII and directs the Administrator to establish a coordinated approach to certifying and permitting geologic sequestration that reduces redundancy with the EPA's proposed rule for geologic sequestration wells. Within 2 years of enactment, EPA also must promulgate rules to protect human health and the environment by minimizing risk of escape to the atmosphere of stored carbon dioxide (CO₂). EPA is required to make regular reports to Congress on the status of CCS activity in the U.S., including information on enhanced oil recovery (EOR) operations that include storage.

Section 113. Studies and Reports

This section requires the establishment of a task force, *expanded to include representatives from tribes, EPA, DOE, the Department of Transportation (DOT), and other relevant agencies*, within 6 months of enactment to conduct a study of the legal framework for geologic storage sites. This study is to address risk management in the context of existing environmental and common law, the appropriate framework to address liability for closed EOR projects, liability and financial responsibility for closed storage sites, private sector risk management tools, and the bundle of property rights associated with CCS projects. The results of the study

must be submitted to Congress within 18 months of enactment. EPA is required to study the applicability of environmental statutes under its authority that would apply to CO₂ injection and storage and report to Congress within 1 year of enactment.

Section 114. Carbon Capture and Sequestration Demonstration and Early Deployment Program

This section incorporates the provisions of Representative Rick Boucher's CCS wires charge bill, H.R. 1689, which authorizes an assessment on deliveries of fossil fuel-fired electricity to retail consumers to create a \$10 billion fund to support demonstration and early deployment of commercial-scale CCS projects over a 10-year period. A Carbon Storage Research Corporation, an affiliate of the Electric Power Research Institute and not an agent of the U.S. government, is created to award funds to projects competitively. [Section 114 is very similar to a House Energy and Commerce Committee Staff Discussion Draft released in September 2008 that reflected the input of stakeholders, and includes new language for assessing the charge within the Electric Reliability Council of Texas (ERCOT).]

The Corporation is directed, to the extent feasible, to support at least 5 commercial-scale demonstration projects. In addition, half of the funds collected are reserved for early-mover electric utilities that commit resources to deploy large-scale, integrated CCS projects that are designed to capture a "substantial portion" of emissions before the Corporation awards its first grant. These reserved funds are to defray the costs incurred for at least 5 integrated electric utility projects. Any entity that receives a grant, contract, or other financial assistance from the Corporation must pay prevailing wages, consistent with the Davis-Bacon Act, which requires that all laborers and mechanics who work on these projects be paid the prevailing wage.

Section 115. Commercial Deployment of Carbon Capture and Sequestration Technologies

This section, which amends the Clean Air Act (new CAA section 786), provides bonus allowances for the first 10 years of a CCS project's operation for up to 72 gigawatts (GW) of generating capacity; this limit includes industrial CCS projects, for which EPA must design an equivalent metric for measuring capacity. (New CAA section 782(f) allocates a percentage of allowances for CCS starting in 2014.) Allowances allocated for this program (under new CAA section 786) that are not distributed to CCS projects are directed to the Climate Change Consumer Refund Account [new CAA section 782(r)].

Electric generating units (EGUs) must have a nameplate capacity of at least 200 MW, derive at least 50 percent of annual fuel input from coal or petcoke, and capture and "geologically sequester" at least 50 percent of emissions to qualify for allowances.

Up to 1 GW of retrofit projects that capture 50 percent of the flue gas associated with 200 MW of nameplate capacity also may qualify for allowances. ***After the 1 GW set-aside has been exhausted, as determined by EPA, retrofit projects may receive bonus allowances if they satisfy the requirements applicable to EGUs described immediately above.*** Fifteen percent of the allowances allocated to CCS are for eligible industrial operations.

If a portion of an annual allocation of allowances is not used, the remaining allowances are auctioned. Allowances can be borrowed from future vintage years to ensure sufficient allowances for a full 10 years of funding for each eligible CCS project.

EPA has 2 years to promulgate rules on the distribution of allowances, but the bill provides many of the details. For EGUs, allowances are to be distributed in two phases. The first 6 GW of cumulative generating capacity constitute Phase I. In Phase I, projects are awarded allowances equal to the number of tons stored multiplied by the bonus allowance value assigned to each rate of capture and divided by the average fair market value of allowances in the preceding year. The bill provides a ceiling and a floor for the bonus allowance values: \$90/ton for 85 percent capture and \$50/ton for 50 percent capture. EPA is directed to establish bonus allowance values for other rates of capture. Projects that achieve a capture rate of 50 percent

by 2017 are entitled to an additional \$10/ton, but only if they notify EPA by 2012 that they intend to achieve this rate. EPA also is directed to reduce the bonus allowance values for EOR operations “to reflect the lower net cost of the project.” In Phase II, EPA will distribute allowances via a reverse auction, unless it determines that reverse auctions are not efficient or cost-effective; in that case, EPA instead may distribute allowances through multiple tranches. EPA has an additional 2 years to promulgate rules addressing Phase II distributions.

Otherwise eligible EGUs that are permitted between 2015 and 2021 cannot receive allowances unless they achieve a capture rate of 50 percent upon commencement of operations. If EGUs permitted between 2009 and January 1, 2019, are eligible for allowances, these are discounted to reflect the number of years, *if any*, prior to 2020 that they operated without CCS. All projects receiving allowances are subject to the Davis-Bacon Act.

Section 116. Performance Standards for New Coal-Fired Power Plants

This section, which adds new CAA section 812, mandates emissions performance standards for new coal-fired EGUs that require all new coal-fired units that receive an initial permit after 2020 to achieve an emission limit that is a 65-percent reduction of CO₂ emissions. EGUs that receive an initial permit between 2009 and 2020 would be required to achieve an emission limit that is a 50-percent reduction of CO₂ emissions 4 years after EPA certifies that there is a specific amount of “commercial operation” of CCS. “Commercial operation” of CCS is confined to the U.S. and is defined as at least 4 GW of generating units, including at least 2 EGUs of 250 MW or greater injecting into geologic formations other than oil and gas fields; and the total 4 GW are capturing and storing at least 12 million tons of CO₂ per year. Of the 4 GW, 3 GW must be EGUs; 1 GW may be industrial applications that capture and sequester 3 million tons of CO₂ per year. If the compliance date of a plant that initially was permitted after 2009 and before 2020 is 2025, the deadline can be extended for 18 months if the operator of the plant can show that it would be technically infeasible to meet the 2025 deadline.

Within 18 months of enactment, EPA must issue a report on the nameplate capacity of all commercially operating units equipped with CCS. EPA also has 2 years to promulgate regulations to carry out the performance standards for new coal-fired generation.

Date Initial Permit Received	Standard	Date Effective
After 1/1/2009	Achieve an emission limit that is a 50% reduction in CO ₂ emissions	4 years after commercial CCS operation certified by EPA or 2025; can be delayed an additional 18 months for certain EGUs
After 1/1/2020	Achieve an emission limit that is a 65% reduction in CO ₂ emissions	Immediately

Subtitle C – Clean Transportation

Section 121. Electric Vehicle Infrastructure

This section establishes a new PURPA section 111(d) requirement for state commissions to consider whether electric utilities must develop a plan to support the use of plug-in hybrid electric vehicles (PHEVs), electric vehicles (EVs), *and heavy-duty hybrid electric vehicles*, including deployment of electric charging stations and other infrastructure necessary to support the use of these types of vehicles. This would include interoperable charging infrastructure. It also allows the state commissions to consider whether to allow cost recovery for plans and implementation of plans. It requires consideration of a Smart Grid integration standard to integrate PHEVs and EVs into an electrical distribution system in accordance with regulations issued by FERC pursuant to EISA 2007. It includes the requirement for each PHEV/EV to be identified individually and to be associated with its owner’s electric utility account for purposes of billing/crediting. It requires state

regulatory authorities to review whether time-of-use pricing should be employed. This review must begin 3 years after enactment and must be completed no later than 4 years after enactment.

Section 122. Large-Scale Vehicle Electrification Program

This section authorizes DOE to establish a large-scale electric drive program, including financial support in the form of grants or loan guarantees to cities, states, or private entities to deploy and integrate PHEVs in multiple regions. Any state or local government can apply for financial assistance, and such applications may be made jointly with electric utilities, automobile manufacturers, or other persons or entities. The funds may be used to cover the incremental cost of PHEVs versus comparable conventionally fueled vehicles, projects for the deployment of electrical charging infrastructure, *Smart Grid equipment and infrastructure*, and other projects determined by DOE. ***As part of this program, DOE is required to create an information clearinghouse that will provide cost, performance, and other technical data on the integration and deployment of PHEVs.***

Section 123. Plug-In Electric Drive Vehicle Manufacturing

This section authorizes DOE to establish a program to provide financial assistance to vehicle manufacturers to facilitate production of PHEVs ***or batteries for the vehicles.***

Section 124. Investment in Clean Vehicles

This section authorizes EPA and DOE to provide allowances (3 percent in 2012 to 2017 and 1 percent in 2018 to 2025) under new CAA section 782(i) for clean vehicle (including plug-in EVs and electric charging infrastructure) manufacturing and deployment. The allowances are available from 2012 to 2025.

Section 127. Open Fuel Standard

This section authorizes the Secretary of Transportation to create regulations that require a minimum percentage of each light-duty automobile manufacturer's annual inventory to be "fuel-choice enabling" automobiles, if DOT determines, in coordination with EPA and DOE, that such a requirement would be cost effective. This section defines "fuel-choice enabling automobile" as an automobile that can operate on biodiesel or a vehicle that can operate on gasoline, M85 (methanol blend), or E85 (ethanol blend).

Section 129. Loan Guarantees for Projects to Construct Renewable Fuel Pipelines

This section makes pipelines carrying renewable fuels, which include ethanol and biodiesel, eligible for DOE loan guarantees under title XVII of the Energy Policy Act of 2005 (EPAct 2005).

Section 130. Fleet Vehicles

This section amends section 508 of the Energy Policy Act of 1992 to require DOE to allocate credits to repowered or converted alternative-fueled vehicles (vehicles that have been modified with an EPA- or California Air Resources Board-compliant engine or system so that the vehicle or engine can operate on an alternative fuel). DOE must allocate credits and create rules by January 1, 2010. To qualify for the credits, the vehicles must stay in the fleet for at least 2 years.

In the case of medium-duty or heavy-duty vehicles that are repowered or converted, DOE can allocate credits only if it determines that the vehicles displace more petroleum than light-duty alternatively fueled vehicles.

Section 130A. Report on Natural Gas Vehicle Emissions Reductions

This section requires EPA, in consultation with DOE, DOT, and the General Services Administration, to submit a report to Congress, within 360 days of enactment, on the contribution that natural gas vehicles have made for the past 10 years on reducing GHGs and criteria pollutants and reducing petroleum usage; the projected contribution of natural gas vehicles on reducing GHGs and criteria pollutants from 2010 to 2020 based on factors including the federal incentives provided in this legislation; and additional federal

government actions, including new legislation, that would “maximize the potential for natural gas used in both stationary and mobile sources” to reduce GHGs and criteria pollutants under the CAA.

Subtitle D – State Energy and Environment Development (SEED) Accounts

Section 131. Establishment of SEED Accounts

This section authorizes DOE to establish a program under which a state, via its state energy office, may establish a SEED fund. A state may deposit into a SEED fund federal appropriations primarily for clean energy, energy efficiency, or climate change, including funds for the Weatherization Assistance Program; the Low-Income Home Energy Assistance Program; grants under the Energy Policy and Conservation Act; state portions of Energy Efficiency and Conservation Block Grants; and the American Recovery and Reinvestment Act of 2009.

Section 132. Support of State Renewable Energy and Energy Efficiency Programs

This section specifies how EPA will distribute to states allowances for energy efficiency and renewable energy beginning at 9.5 percent of allowances in 2012 to 2015. See new CAA 782(g)(1).

Subtitle E – Smart Grid Advancement

Section 142. Assessment of Smart Grid Cost-Effectiveness in Products

This section establishes that not later than 1 year after enactment, DOE and EPA will assess the potential for designating Smart Grid technologies to be integrated within Energy Star products. Within 2 years after enactment, DOE and EPA will conduct an analysis of the potential energy savings and electrical cost savings that could accrue from each of the products referred for potential designation as Energy Star products to establish the “best case” Smart Grid analysis. If a product is found to be cost effective, then DOE and EPA, not later than 3 years from enactment, will change any such Energy Star label to include a prominent note including certain Smart Grid capability information. *EPA also is required to submit a report that summarizes the results of the assessment for each class of product and presents the potential energy savings and GHG reductions resulting from the use of Smart Grid capability on the products.*

Section 143. Inclusion of Smart Grid Capability on Appliance EnergyGuide Labels

This section requires the Federal Trade Commission (FTC) to initiate a rulemaking to determine if Smart Grid capabilities should be highlighted on EnergyGuide labels. The FTC has *1 year from enactment to start a rulemaking and* 3 years from enactment to complete its rule.

Section 144. Smart Grid Peak Demand Reduction Goals

This section provides that not later than 1 year from enactment, load-serving entities (LSEs) or states will determine and publish peak demand-reduction goals for any LSE serving more than 250 MW. However, FERC, in consultation with DOE and EPA, will develop a methodology for adjustments or normalization to an LSE’s applicable baseline. *FERC must publish this methodology within 180 days of enactment.* FERC will support LSEs in developing peak demand-reduction goals. DOE, in consultation with FERC, EPA and the North American Electric Reliability Corporation (NERC), will develop a system and rules for measurement and verification of demand reductions. Goals must specify reduction/mitigation by a minimum percentage from the applicable baseline to a lower peak demand during year 2012, with greater reduction goals in 2015. Goals shall be the maximum realistically achievable with aggressive Smart Grid and peak demand reduction technology deployment. Each load-serving entity shall prepare a plan that demonstrates its ability to meet these goals.

Section 144 includes a savings clause preserving existing state authority, which requires FERC—in consultation with states having peak management, demand response and distributed storage programs—to facilitate coordination between the federal program and such state programs to the maximum extent possible.

Within 1 year of enactment, FERC will establish a public Web site for posting information demonstrating compliance—by states, regional entities, and LSEs—in meeting applicable peak demand-reduction goals. Commencing in 2012, FERC will provide an annual report to Congress on compliance success and include appropriate recommendations for meeting compliance goals. DOE is authorized to make grants to the states and other entities. The section provides for FERC to grant relief to LSEs for “good cause.”

Section 145. Reauthorization of Energy Efficiency Public Information Program to Include Smart Grid Information

This section reauthorizes and funds the Energy Efficiency Public Information Program to include Smart Grid information. *It also extends the program and budget authorization from December 31, 2010, to December 31, 2020.*

Section 146. Inclusion of Smart-Grid Features in Appliance Rebate Program

This section allows Smart Grid capabilities of a product to be part of the Energy Efficient and Smart Appliance Rebate Program established under EAct 2005.

Subtitle F – Transmission Planning

Section 151. Transmission Planning

This section amends the backstop siting provision in section 216 of the Federal Power Act (FPA) by adding an additional requirement in subsection (b) (jurisdiction and applicability) that “the facility is interstate in nature or is an intrastate segment integral to a proposed interstate facility;” and by providing that section 216 does NOT apply in the Western Interconnection.

This section also amends the FPA by adding new sections 216A *and* 216B.

Section 216A. Transmission Planning

This section requires FERC, within 1 year of enactment, to adopt national grid planning principles to achieve national policy goals, including facilitating the deployment of renewable and other zero-carbon energy, ensuring reliability, reducing congestion, ensuring cyber-security, *and serving the planning needs of load-serving entities under FPA section 217*. Planning should *result from an open, inclusive and transparent process*, taking into account all significant demand-side and supply-side options, including energy efficiency, Smart Grid, electricity storage and underground transmission technologies, and conventional electric transmission capacity and corridors.

Not later than three months after the planning principles are adopted, entities that wish to conduct transmission planning under the planning principles shall identify themselves to FERC. (No FERC approval is required to be a planning entity.) These entities may include states, *tribes, Federal Power Marketing Administrations, transmission providers*, operators and owners, regional organizations and electric utilities. FERC is to encourage the planning entities to coordinate and harmonize their plans, and shall seek to ensure that planning consistent with the principles is conducted in all regions of the U.S., *but, to the extent feasible, avoid uncoordinated planning by more than one planning entity for the same area*. In implementing the federal policy, FERC shall incorporate and coordinate with any ongoing planning efforts undertaken pursuant to FPA section 217 *and FERC Order No. 890. FERC should coordinate with DOE in providing to the regional planning entities an annual summary of national energy policy priorities and goals; coordinate with DOE on corridor designations made by DOE under section 216, and coordinate with the Secretaries of Interior and Agriculture and with Indian tribes in carrying out their existing responsibilities for the planning or siting of transmission facilities on federal or tribal lands*. FERC shall provide assistance to and may participate, if invited to do so, in regional grid planning processes. DOE and FERC may provide resources and assistance to regional planning entities. FERC also shall assist the planning entities in resolving any conflicts between the plans.

Planning entities are to submit plans to FERC within 18 months, *with updates to the plans at least every 3 years*, and are to build on subregional requirements and plans. Regional plans may be combined into larger regional plans, up to interconnection-wide and national plans as appropriate and necessary as determined by the Commission. *In no case shall a multi-regional plan impose inclusion of a facility on a region that has submitted a valid plan that, after efforts to resolve the conflict, does not include the facility.*

FERC is to review the plans, make recommendations, and convene multi-regional meetings to discuss the plans and to resolve any conflicts. FERC is to recommend how to resolve the conflicts. Within 3 years, FERC is to provide a report to Congress on the results of the regional grid planning process and any recommendations on the appropriate federal role.

Section 216B. Siting and Construction in the Western Interconnection

This section applies only in the Western Interconnection and does not apply to states located in the Eastern Interconnection and to Alaska, Hawaii or ERCOT.

The section provides for FERC backstop siting for multistate facilities included in one or more of the regional or interconnection-wide plans developed under section 216A. FERC must find that the facility was identified as needed in significant measure to meet demand for renewable energy in such plans. To trigger FERC's backstop siting authority, the developer must have filed a complete application for approval with a state commission or other entity with siting approval for the facility, and a state commission or other siting authority: (1) did not issue a final decision on the application within one year; (2) denied a complete application seeking siting approval; or (3) authorized the siting of the facility subject to conditions that unreasonably interfere with the development of the facility. FERC also must find that the siting of the facility can be accomplished in a manner consistent with the federal planning principles.

In issuing a final certificate of public convenience and necessity, FERC shall consider any siting constraints and mitigation measures identified by relevant state or local authorities, and incorporate those constraints or measures, including recommendations related to project routing, as conditions in the final certificate, or, if FERC determines that a recommended constraint or mitigation measure is infeasible, excessively costly, or inconsistent with federal planning policy and principles, it shall consult with the state authorities and try to resolve the issue. If FERC does not adopt a recommendation, it must publish a finding that adoption of the recommendation is infeasible, not cost-effective or inconsistent with this section or other applicable provisions of law.

FERC shall act as lead agency for purposes of coordinating federal authorizations needed in order to site a transmission facility. However, to the extent that the facility is proposed to be sited on federal lands, DOI will assume lead-agency duties, as agreed between FERC and DOI. To the maximum extent practicable under federal law, FERC and DOI shall coordinate the federal authorization and approval process with any Indian tribes, multistate entities, and state agencies that are responsible for conducting any separate permitting and environmental reviews of the facility. FERC as lead agency shall establish prompt and binding milestones and deadlines for the review of and federal authorization decisions relating to the facility. FERC, or DOI as agreed with FERC, shall ensure that all permit decisions and related environmental reviews are completed within one year, or if federal law does not permit compliance with the one-year deadline, as soon thereafter as is practicable. FERC shall provide an expeditious pre-application process. As lead agency, FERC shall prepare a single environmental review document. FERC and other agencies shall streamline review and permitting of transmission within corridors designated under section 503 of the Federal Land Policy and Management Act.

If any agency has denied a federal authorization required for a transmission facility or has failed to act by the deadline established by FERC, the applicant or state in which the facility is located may file an appeal with the President, who shall issue a decision within 90 days. Certain types of lands are excluded from the

appeal provision. FERC (or DOI) shall issue necessary regulations and enter into a memorandum of understanding with relevant federal agencies. [Note: The lead agency provisions closely track those in section 216.]

Section 152. Net Metering for Federal Agencies

This section adds a new PURPA section 113 standard requiring states to consider whether to adopt a standard that requires electric utilities to provide interconnection and net metering to federal government facilities. The standard would apply to electric utilities that sold more than 4 million MWh in the preceding year to ultimate customers. Under this standard, if only one meter is required, then the customer pays for the meter, but if more than one meter is needed, then the utility is responsible for all net metering costs. This standard further requires each electric utility to offer a meter and retail billing arrangement that has time-differentiated rates. This standard also does not allow utilities to have standby charges in these situations.

Section 153. Support for Qualified Advanced Electric Transmission Manufacturing Plants, Qualified High Efficiency Transmission Property, and Qualified Advanced Electric Transmission Property

This section authorizes loan guarantees and grants for advanced electric transmission manufacturing and property.

Subtitle G – Technical Corrections to Energy Laws

Sections 161 and 162 make technical corrections to EISA 2007 and EPCA 2005, primarily regarding energy efficiency standards.

Subtitle H – Energy Hubs and Efficiency Centers and Research

Section 171. Energy Innovation Hubs

This section establishes 8 regional Clean Energy Innovation Hubs selected by DOE, each focusing on a unique technology.

Section 172. Advanced Energy Research

This section establishes the Advanced Research Projects Agency—Energy (ARPA-E) with 1.05 percent of all allowances from 2012 to 2050.

Section 173. Building Assessment Centers

This section requires DOE to provide funds to colleges for Building Assessment Centers.

Section 174. Centers for Energy and Environmental Knowledge and Outreach

This section requires DOE to establish as many as 10 regional Centers for Energy and Environmental Knowledge and Outreach at institutions of higher education. DOE is required to select the Centers through a competitive process. DOE also is required to distribute the Centers geographically to ensure that all U.S. regions are represented.

Section 175. High Efficiency Gas Turbine Research, Development, and Demonstration

This section requires DOE to carry out a multi-year research and development program that ultimately will lead to a combined-cycle gas turbine achieving an efficiency of at least 65 percent. DOE is required to solicit proposals within 180 days of enactment. DOE is authorized to spend \$65 million per year for fiscal years 2011 through 2014.

Subtitle I – Nuclear and Advanced Technologies

This subtitle revises the loan guarantee authority established in title 17 of EPCA 2005 by creating a Clean Energy Deployment Administration (CEDA), an independent corporation wholly owned by the federal government. CEDA will consist of an Advisory Council and a Board of Directors, and is chartered for 20

years. A Clean Energy Investment Fund is created within Treasury to promote domestic development and deployment of clean energy technologies, advanced or enabling energy infrastructure technologies, and energy efficiency technologies. Clean energy technologies are those that contribute to a stabilization of GHG atmospheric concentrations and for which there is insufficient commercial lending available at affordable rates to allow for widespread deployment. It requires the Treasury Department to issue \$7.5 billion in “Green Bonds” to be used for the deployment of clean and efficient energy technologies. CEDA can provide direct loans, letters of credit, and loan guarantees and also can provide indirect support, including facilitating financing transactions in tax equity markets. This subtitle does have Davis-Bacon wage rate requirements.

Subtitle J – Miscellaneous

Section 195. Increased Hydroelectric Generation at Existing Facilities

This section requires DOE, DOI and the Department of the Army to jointly update a study originally required by section 1834 of EPCA 2005 regarding the potential for increasing generating capacity at federally owned and operated hydroelectric facilities. The updated study must provide a detailed identification and description of each facility that is capable (with or without modification) of producing additional power. The agencies are directed to provide a report to Congress within 12 months of the date of enactment that includes these detailed facility descriptions, as well as a description of prior, current, and planned activities to increase production from these facilities; the costs and benefits of installing, upgrading or modifying equipment to increase production at the facilities; and a description of the impact of increased production on irrigation, water quality and supply, wildlife, and other matters.

Section 196. Clean Energy Technology Business Competition Grant Program

This section authorizes DOE to provide grants to nonprofit organizations to conduct business competitions that provide incentives, training and mentorship to entrepreneurs and early stage start-up energy, efficiency, renewables and other companies. In making grants, DOE is to give priority to private sector-led competitions that encourage regional and interregional cooperation and can demonstrate market-driven practices and the creation of “cost-effective green jobs,” and to organizations with broad funding support from private and other non-federal funding sources. \$20 million is authorized for this program.

Section 197. National Bioenergy Partnership

This section requires the Secretary of Energy to establish a National Bioenergy Partnership to coordinate state and federal government and private sector activities to promote the deployment of sustainable biomass fuels and bioenergy technologies. A total of \$7.5 million is allocated for this program, to be allotted among five regions.

Section 198. Office of Consumer Advocacy

This section creates an Office of Consumer Advocacy within FERC to “serve as an advocate for the public interest.” *The existing Office of Administrative Litigation at FERC would be incorporated into the Office of Consumer Advocacy.* The Director would be appointed by the President and confirmed by the Senate. The Office would represent energy customers [defined as residential or small commercial (less than 1000 kW per year) customers] in hearings before the Commission, before other federal agencies, or *as amicus curiae (friend of the court)* in related judicial proceedings. Additionally, the Office would have power to monitor energy customer complaints, conduct independent investigations, provide technical assistance, collect data, and prepare and issue reports. A Consumer Advocacy Advisory Committee, made up of two state utility consumer advocates, one non-governmental organization representing consumers, and two other members, would advise the Director.

Section 199. Development Corporation for Renewable Power Borrowing Authority

This section directs that DOE, in coordination with the Department of Commerce, shall within 6 months of enactment develop plans or criteria regarding investment in renewable energy and associated infrastructure within geographic areas that lack a federal power marketing agency. Further, DOE, in coordination with Commerce, is directed to recommend to the House Energy and Commerce Committee the establishment of any new federal lending authority (or establishment of additional lending authority for existing federal agencies) up to a maximum of \$3.5 billion for such geographic areas lacking a federal power marketing agency. \$25 million is authorized for fiscal year 2010 to carry out this section.

Section 199A. Study of Thorium-Fueled Nuclear Reactors

This section directs DOE to study the use of thorium-fueled nuclear reactors for national energy needs and to respond to an International Atomic Energy Agency report entitled “Thorium fuel cycle – Potential benefits and challenges.” DOE must report the results to Congress by February 1, 2011.

TITLE II – ENERGY EFFICIENCY

Subtitle A – Building Energy Efficiency Programs

Section 201. Greater Energy Efficiency in Building Codes

This section requires DOE to support updating building codes every 3 years to achieve these targets for commercial and residential building codes; a 30-percent improvement relative to 2004 or 2006 codes *effective on the date of enactment*; and a 50-percent improvement starting with codes released in or after 2014-2015 with 5-percent additional *efficiency improvements* every 3 years thereafter *through 2029 or 2030*. *It establishes that DOE will provide incentive funding to the states to implement these requirements through the SEED Account.*

DOE may adjust these targets. *If consensus code-making organizations cannot meet these targets, then DOE is required to create a national code that all states must adopt within 1 year of publication.* If states and/or local governments fail to enforce building codes, DOE is given the authority and is required to enforce the codes.

This section also requires DOE, within 2 years of enactment, to establish an energy efficiency building code enforcement capability. DOE is required, within 3 years of enactment, to determine and adopt by rule what constitutes violations to energy efficiency building codes and to decide on the penalties that would apply to violators.

Section 202. Building Retrofit Program

This section establishes a building retrofit program under EPA, in consultation with DOE, for both commercial and residential buildings, to be known as the Retrofit for Energy and Environmental Performance (REEP) program. This section also authorizes expenditures of \$70 million per year for fiscal years 2010 through 2013.

Section 203. Energy Efficiency Manufactured Homes

This section establishes a DOE program grant for low-income households residing in manufactured homes built prior to 1976 to purchase new Energy Star-qualified manufactured homes.

Section 204. Building Energy Performance Labeling Program

This section requires EPA to develop a building energy performance labeling program *for new residential and commercial buildings*. *It requires EPA to create a model building energy label within 1 year of enactment. EPA also is required to submit a progress report to Congress within 3 years of enactment.*

Section 205. Tree Planting Programs

This section establishes a voluntary, cost-shared, competitive grant program to support urban tree planting for numerous purposes, including shading and windbreaks, to reduce residential and small office heating and cooling needs, and to sequester carbon. DOE funding is not specified. The program involves retail power providers working with tree-planting organizations and an advisory committee.

Section 207. Community Building Code Administration Grants

This section creates a new grant program operated by the Department of Housing and Urban Development (HUD) that would provide grants to local governments to enforce building codes, including energy efficiency codes.

Section 208. Solar Energy Systems Building Permit Requirements for Receipt of Community Development Block Grant Funds

For entities receiving community development block grants, this section caps the cost of building permits for solar energy systems at \$500 for residential structures and one percent of the total cost of the installation or construction of the solar energy system, up to \$10,000, for commercial structures. Non-compliance with these requirements disqualifies the entity from receiving these block grants.

Section 209. Prohibition of Restrictions on Residential Installation of Solar Energy System

This section requires HUD, in consultation with DOE, to issue regulations that prohibit any restrictions on the ability of owners or renters to install, build, maintain, or use a solar energy system on residential property. This regulation is required to be issued within 180 days of enactment.

Subtitle B – Lighting and Appliance Energy Efficiency Programs

Section 211. Lighting Efficiency Standards

This section establishes a new energy efficiency standard for *certain* outdoor lighting fixtures. Initial standards are effective in **2016**, and higher standards are effective in **2018**. DOE also is required to review these standards *by January 1, 2022*. This section also establishes requirements, starting in **2017**, for certain outdoor light bulbs. Additionally, it creates new standards, starting in 2012, for portable light fixtures (*e.g.*, table lamps). This means that new table lamps either will have different sockets or will be prepackaged with high-efficiency light bulbs. *DOE is required to publish amended standards on portable light fixtures by January 1, 2014, that would take effect on January 1, 2016*. This section mandates that DOE publish a final rule for certain incandescent reflector lamps (*i.e.*, spotlights) within 1 year of enactment. *The new standards on the incandescent reflector lamps are to take effect on July 1, 2013. DOE also is required to publish a new final rule for reflector lamp efficiency standards by January 1, 2015, and the new standards would take effect no earlier than January 1, 2018.*

Section 212. Other Appliance Efficiency Standards

This section establishes, starting in 2012, standby energy usage levels for water dispensers, commercial hot food holding cabinets, and portable electric spas. Additionally, it establishes new efficiency standards for oil- and gas-fired commercial furnaces starting on January 1, 2011. Also modifies the DOE rulemaking process for accepting consensus test procedures for any product covered by DOE energy efficiency regulations.

Section 213. Appliance Efficiency Determinations and Procedures

This section requires DOE to estimate the value of CO₂ and other GHG emissions reductions achieved by higher energy efficiency standards. (This is significant because these values will be used by DOE in conducting lifecycle and net present value analysis to determine whether a standard should be made stricter.) This section also requires DOE to update the energy efficiency test procedure for televisions within 12 months of enactment.

This section modifies information to be requested by DOE from manufacturers. It also modifies the procedure for a state to request a waiver from federal preemption of state energy efficiency standards.

This section requires the FTC, within 24 months of enactment, to revise appliance Energy Guide labels to show overall site and source CO₂ output of the appliance. ***It also requires the FTC to start this rulemaking within 90 days of enactment. DOE is required to issue calculation methods within 90 days of the issuance of the final FTC rule.***

Section 214. Best-In Class Appliances Deployment Program

This section requires DOE to create a best-in-class appliances deployment program. ***It is designed to highlight the most efficient 10 percent of appliances within a product class and award payments to manufacturers and retailers of such products, especially when replacing less-efficient products.***

Section 215. WaterSense

This section requires EPA to create a WaterSense program to identify and promote water-efficient products, buildings and landscapes, as well as services, through voluntary labeling or other communications.

Section 216. Federal Procurement of Water Efficient Products

This section requires federal agencies to purchase water-efficient products, either WaterSense products or Federal Energy Management Program-designated products (among the highest 25 percent of products in terms of water efficiency).

Section 217. Early Adopter Water Efficient Product Incentive Programs

This section requires EPA to provide incentives to eligible entities—including energy utilities—that have programs to provide incentives to residential consumers for purchasing and installing water-efficient products. Funding is authorized at between \$50 million to \$150 million for fiscal years 2010 through 2014.

Section 219. Energy Star Standards

This section requires EPA and DOE, within 18 months of enactment, to establish and implement a rating system for Energy Star products to provide consumers with greater information, including cost-effectiveness and payback periods associated with the energy efficient features, unless EPA and DOE tell Congress that such a system would diminish the value of the Energy Star brand. It also requires a review of the Energy Star criteria of certain products at least once every 3 years.

Subtitle C –Transportation Efficiency

Section 221. Emissions Standards

This section amends the CAA to require EPA to set GHG emissions standards for new heavy-duty vehicles and engines, and new non-road vehicles and engines, excluding vehicles covered by tier II standards, by 2010 or 2012.

The standards are not allowed to take effect until the model year that begins at least 4 years after such regulations are finalized. Electric engines and EVs are covered under this regulation.

Section 222. Greenhouse Gas Emissions Reductions Through Transportation Efficiency

This section requires EPA, in consultation with DOT, to create and update regulations on national transportation-related GHG emissions reduction goals. EPA is required to consult with states and metropolitan planning organizations. EPA is required to publish proposed regulations within 1 year of enactment and publish final regulations within 18 months of enactment. Requires states and metropolitan planning organizations to establish goals or plans for reducing GHGs in transportation.

Subtitle D – Industrial Energy Efficiency Programs

Section 241. Industrial Plant Energy Efficiency Standards

This section directs DOE to develop *voluntary* industrial energy efficiency certification standards and to seek to achieve American National Standards Institute (ANSI) accreditation.

Section 242. Electric and Thermal Waste Energy Recovery Award Program

This section establishes DOE financial awards to owners and operators of new and existing electric energy generation facilities or thermal energy production facilities using fossil or nuclear fuel to encourage the use of innovative means of recovering thermal energy.

Section 244. Motor Market Assessment and Commercial Awareness Program

This section requires DOE to study electric motors and the electric motors market in the U.S. and to create a commercial awareness program.

Section 245. Motor Efficiency Rebate Program

This section authorizes DOE to establish a federal motor efficiency rebate program for fiscal years 2011 through 2015. *DOE is required to establish the program by January 1, 2010.*

Section 246. Clean Energy Manufacturing Revolving Loan Fund Program

This section requires DOE to establish a matching grant program in which the grant money will be provided to states to establish revolving loan funds to provide loans to small and medium-sized manufacturers to finance clean energy products (including those relating to wind turbines, solar energy, fuel cells, advanced batteries, and CCS) or energy efficient upgrades or new installations. The limit on each grant is \$500 million per fiscal year, and the program is authorized to spend \$15 billion per year in fiscal years 2010 and 2011.

Section 247. Clean Energy and Efficiency Manufacturing Partnerships

This section requires DOE to establish a clean energy manufacturing supply chain initiative to assist manufacturers in making them more efficient and in producing fewer emissions. This is designed to be a cost-sharing program, and is authorized to spend \$200 million in fiscal year 2010, rising each year until it reaches \$400 million in fiscal year 2014.

Subtitle E – Improvements in Energy Savings Performance Contracting

Section 251. Energy Savings Performance Contracts

This section establishes competition requirements for the use of an Energy Savings Performance Contract (ESPC). It revises section 203 of EPCA 2005 (which mandates a renewable energy purchase requirement for the federal government) to allow electric energy or thermal energy to meet this requirement. Additionally, it revises EPCA 2005 section 203 to provide that renewable energy produced on a federal facility on federal lands or on Indian lands will be calculated separately from renewable energy consumed for the purposes of compliance *with the requirements for federal purchases of renewable energy. This section allows renewable energy produced on-site to count towards the requirements for the purchasing of renewable energy by the federal government.*

Subtitle F – Public Institutions

Sections 261 to 264 generally authorize DOE to make grants for efficiency and/or renewable programs to a variety of nonprofit, community, and low-income organizations.

Section 265. Consumer Behavior Research

This section requires DOE to establish a research program to identify the factors affecting consumer actions to conserve energy and to make energy efficiency improvements. Grants are to be provided to institutions of higher learning to carry out projects in this area. DOE is required to report to Congress on the status of this program within 120 days of enactment.

Subtitle G – Miscellaneous**Section 271. Energy Efficient Information and Communications Technologies**

This section requires each federal agency, *within 1 year of enactment*, to collaborate with the Office of Management and Budget (OMB) to create an implementation strategy, including best practices and measurement and verification techniques, for the purchase and use of energy efficiency information and communications technologies and practices. This section establishes that, wherever possible, existing standards and practices that have been or are being developed in open collaboration with broad stakeholder input/review should be incorporated. This section also provides that not later than 6 months from the date of enactment, OMB will establish performance goals. *OMB is required to provide a progress report to Congress within 18 months of enactment, and annually after the first report.*

Section 272. National Energy Efficiency Goals

This section requires DOE, in cooperation with EPA and other appropriate federal agencies, to develop a national plan to improve the overall energy productivity of the U.S., measured in gross domestic product per unit of energy input, by at least 2.5 percent per year by 2012, and to maintain that rate of improvement through 2030. DOE is required to complete the plan within 1 year of enactment, and is required to update the plan every 2 years.

Section 274. Product Carbon Labeling Program

This section requires EPA to conduct a study to determine the feasibility of creating a national program for the labeling of products and materials sold in the U.S. for their carbon content. As part of this report, EPA is required to evaluate the appropriate boundaries of the carbon lifecycle analysis for different sectors and products. Within 18 months of enactment, EPA is required to send a report to Congress. Within 3 years of enactment, EPA is required to establish a voluntary national product carbon disclosure program. Within 5 years of program establishment, EPA is required to report to Congress on the effectiveness and impact of the program. In this section, the terms “carbon content,” “carbon footprint,” and “carbon lifecycle” are defined.

Section 275. Industrial Energy Efficiency Education and Training Initiative

This section requires DOE to establish a program to educate commercial and industrial customers about the merits of mechanical insulation as an energy efficient technology. DOE is required to submit a progress report to Congress by July 1, 2013.

Subtitle H – Green Resources for Energy Efficient Neighborhoods**Section 283. Implementation of Energy Efficiency Participation Incentives for HUD Programs**

This section requires HUD to issue regulations to establish energy efficiency participation initiatives as part of HUD assistance programs. The regulations must be issued within 180 days of enactment.

Section 284. Basic HUD Energy Efficiency Standards and Standards for Additional Credit

This section mandates that the baseline energy efficiency standards for HUD projects will be met if a building complies with ASHRAE 90.1-2007 or IECC 2009 or their successor codes. To obtain additional credits, single family residential facilities must comply with Energy Star standards, and high-rise facilities must comply with one of several “green building” programs (LEED, Green Globes, or the National Green Building Standard).

Section 285. Energy Efficiency and Conservation Demonstration Program for Multifamily Housing Projects Assisted With Project-Based Rental Assistance

This section requires HUD to establish a demonstration program to show the effectiveness of meeting enhanced energy efficiency standards. The program is required to operate over a 4-year period beginning 1 year after enactment, and is supposed to affect at least 50,000 dwelling units.

Section 286. Additional Credit for Fannie Mae and Freddie Mac Housing Goals for Energy-Efficient and Location-Efficient Mortgages

This section provides additional credits to Fannie Mae and Freddie Mac for complying with 1992 and 2008 laws on energy-efficient and location-efficient mortgages.

Section 287. Duty to Serve Underserved Markets for Energy-Efficient and Location-Efficient Mortgages

This section requires Fannie Mae and Freddie Mac to facilitate a secondary market for energy-efficient and location-efficient mortgages to serve lower-income families. This section also provides definitions of energy-efficient and location-efficient mortgages.

Section 289. Energy-Efficient Mortgages and Location-Efficient Mortgages Education and Outreach Campaign

This section requires HUD, in consultation with several other agencies, to establish a commission to develop and recommend model mortgage products and underwriting guidelines to provide market-based incentives to home buyers, lenders, and sellers to include energy efficiency upgrades and location efficiencies in new mortgage loan transactions. HUD is required to provide a progress report to Congress within 24 months of enactment. After the report is submitted, HUD, in coordination and consultation with the other agencies, is required to carry out a public awareness, education, and outreach campaign.

Section 291. Ensuring Availability of Homeowners Insurance for Homes Not Connected to Electricity Grid

This section shows “congressional intent” that consumers should not be denied homeowners’ insurance based solely on the fact that they are not connected to the electric grid, and that states should ensure that consumers are able to obtain insurance for “off grid” homes, and that states should support insurers that develop voluntary incentives to provide such insurance. This section also says that states may not prohibit insurers from offering homeowners’ insurance products specifically designed for such homes.

Section 292. Mortgage Incentives for Energy-Efficient Multifamily Housing

This section requires HUD to establish incentives for increasing the energy efficiency of multi-family housing that is subject to a mortgage insured under Title II of the National Housing Act. This section also describes what such incentives may include.

Section 293. Energy-Efficient Certifications for Manufactured Housing with Mortgages

This section mandates that HUD require that only certified individuals provide energy-efficient certifications to manufactured homes subject to mortgages insured under Section 526 of the National Housing Act.

Section 294. Assisted Housing Energy Loan Pilot Program

This section requires HUD, within 12 months of enactment, to develop and implement a pilot program to facilitate the financing of cost-effective improvements for covered assisted housing projects to improve the energy efficiency of such projects. HUD also is required to establish underwriting requirements for loans made under the pilot program.

Section 295. Making It Green

For new or substantially rehabilitated housing for which HUD financial assistance is provided, the Secretary shall require development of a plan that provides for siting in a manner that provides for energy

efficiency and conservation; care of existing trees; and proper selection and care of new trees, shrubs, grasses and other plants. Partnerships with tree planting organizations are financially incentivized to certify landscaping that survives for at least 3 years.

Section 296. Residential Energy Efficiency Block Grant Program

This section requires HUD to make grants to states, cities, counties, Indian tribes, and “insular areas” to carry out energy efficiency improvements in new and existing single-family and multi-family housing. This section authorizes HUD to spend \$2.5 billion in fiscal year 2010 “and such sums as may be necessary for each fiscal year thereafter” for this program.

Section 298. Grant Program to Increase Sustainable Low-Income Community Development Capacity

This section allows HUD to make grants to nonprofit organizations for various activities associated with low-income community development, including grants, loans, energy efficiency training and education, as well as other activities. The grants are designed to be matched by equal amounts (via cash or in-kind services) provided by the nonprofit organizations.

Section 299. Hope VI Green Developments Requirement

This section amends Section 24(e) of the United States Housing Act of 1937 to prohibit HUD from making a grant under this section unless the applicant meets and complies with Green Community Criteria and the building(s) are certified as Green Building(s).

Section 299A. Consideration of Energy Efficiency Improvements in Appraisals

This section amends Section 1110 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 to require that appraisals associated with federally related transactions must consider any on-site renewable energy assets and/or energy efficiency improvements when determining the value of the property.

Section 299B. Housing Assistance Council

This section requires the Housing Assistance Council to encourage and establish incentives for organizations receiving assistance to provide that any structures and buildings developed or assisted therewith comply with energy efficiency standards under sections 284(a) and (b) of this subtitle.

Section 299C. Rural Housing and Economic Development Assistance

This section requires any entity that received assistance from the Office of Rural Housing and Economic Development of HUD to comply with energy efficiency standards as shown in Section 284 of this bill.

Section 299D. Loans to States and Indian Tribes to Carry Out Renewable Energy Sources Activities

This section requires HUD to provide loans to states and Indian tribes to incent owners of residential properties to provide on-site renewable energy, energy efficiency improvements, or infrastructure associated with providing electricity or hot water to facilities without such amenities.

Section 299E. Green Banking Centers

This section requires the creation of guidelines for creating and maintaining “Green Banking Centers” by insured banking and credit union facilities.

Section 299F. GAO Reports on Availability of Affordable Mortgages

This section requires GAO to report to Congress on the impact of this subtitle on the availability of affordable mortgages in various areas of the U.S.

Section 299G. Public Housing Energy Cost Report

This section requires HUD to collect energy cost data from every public housing agency, with data for the most recent 12-month period being sent to HUD.

Section 299H. Secondary Market for Residential Renewable Energy Lease Instruments

This section requires HUD to encourage the leasing of residential renewable energy systems and to determine the residual value of such systems.

Section 299I. Green Guarantees

This section allows HUD to guarantee the “green portion” of eligible mortgages.

TITLE III – REDUCING GLOBAL WARMING POLLUTION

Subtitle A – Reducing Global Warming Pollution

Section 311. Reducing Global Warming Pollution

This section amends the CAA by adding a new title VII, Global Warming Pollution Reduction Program.

TITLE VII – GLOBAL WARMING POLLUTION REDUCTION PROGRAM

Part A – Global Warming Pollution Reduction Goals and Targets

New title VII sets out “Economy-wide Reduction Goals” (new CAA section 702) and “Reduction Targets for Specified Sources” (new CAA section 703). New CAA section 721(e)(2) indicates that the bill is designed to cover 66.2 percent of U.S. GHG emissions in 2012, 75.7 percent of emissions in 2014, and 84.5 percent of emissions in 2016, including those from electric utilities, oil companies, large industrial sources, and other covered entities. (Note: Capped emissions, capped source and covered entity are defined in section 312.) New CAA section 704 addresses supplemental reductions.

Under section 3, the Administrator is required to prepare a report annually on whether China and India have adopted GHG emission standards at least as strict as under H.R. 2454 and, if they have not, to send a report to each member of Congress and the media.

The targets and timetables of the bill are based on the U.S. CAP proposal:

Waxman-Markey bill

3 percent below 2005 levels by 2012
17 percent below 2005 levels by 2020¹
42 percent below 2005 levels by 2030
83 percent below 2005 levels by 2050

For comparison, other recent proposals provide:

U.S. CAP proposal

3 percent below to 2 percent above 2005 levels by 2012
 14 percent to 20 percent below 2005 levels by 2020
 42 percent below 2005 levels by 2030
 80 percent below 2005 levels by 2050

¹ The reduction goal in new CAA section 702 is still 20 percent below 2005 levels by 2020, but the reduction target for specific sources in new CAA section 703 has been changed to 17 percent below 2005 levels by 2020.

Boucher-Dingell discussion draft (110th Congress)

6 percent below 2005 levels by 2020
44 percent below 2005 levels by 2030
80 percent below 2005 levels by 2050

Obama FY 2010 budget proposal

14 percent below 2005 levels by 2020
83 percent below 2005 levels by 2050

Markey bill (110th Congress)

2005 levels by 2012
20 percent below 2005 levels by 2020
85 percent below 2005 levels by 2050

Waxman (110th Congress)

2009 levels by 2010
1990 levels by 2020 (roughly 20 percent below 2005 levels by 2020)
80 percent below 1990 levels by 2050

New CAA sections 705 and 706 instruct EPA to report by July 2013, and every four years thereafter, on scientific, monitoring and worldwide reduction trends. EPA must contract with the National Academy of Sciences (NAS) within 1 year of enactment for the NAS to submit its own report to Congress by July 2014, and every 4 years thereafter, on its own assessment of the items that EPA looked at in section 705, plus technology trends. Significantly, the NAS must act even if EPA does not.

New CAA section 707 requires the President by July 2015, and every 4 years thereafter, to take appropriate actions identified in the EPA and NAS reports and to address any shortfalls identified in the reports. In the event either the *EPA Administrator* or NAS concludes the U.S. actions and/or global actions will not achieve desired reduction levels, the President shall submit a plan to Congress—including for additional legislative action—providing recommendations by July 2015 and every 4 years thereafter. The EPA and NAS reports could be used to strengthen the reduction targets.

Part B – Designation and Registration of Greenhouse Gases

New CAA section 711 lists the six commonly recognized GHGs—CO₂, methane, nitrous oxide, sulfur hexafluoride (SF₆), hydrofluorocarbons (emitted as byproduct), and perfluorocarbons (PFCs)—and also nitrogen trifluoride (NF₃). (Note: NF₃ is technically a subset of PFC.) Other anthropogenic gases may be designated as GHGs by the Administrator after undergoing a petition process.

The Administrator must consult with the Science Advisory Board when evaluating petitions to designate a new gas.

New CAA section 712 lists CO₂ equivalents (CO₂e) for the seven classes of GHGs and their components.

New CAA section 713 requires the Administrator to establish a “federal greenhouse gas registry” for covered entities and vehicle fleets emitting more than 25,000 tons of CO₂e annually. The definition of a covered entity includes any entity that “produced, imported, manufactured, or delivered” any of the covered GHGs above specified thresholds, and also includes any entity that delivers electricity to an energy-intensive facility in an industrial sector. [See new CAA section 713(a)(2).] Measurement protocols also are required to be established for CCS systems but not for EOR operations.

The Climate Registry (TCR) is singled out as a reporting protocol but twice erroneously characterized with “other mandatory state or multistate” programs. H.R. 2454 does not acknowledge reporting by electric generating units under the CAA Amendments of 1990 or the rulemaking currently in process under the FY08 Omnibus Appropriations Act, but it does allow the Administrator to waive reporting requirements for “specific entities” if it is determined that “sufficient and equally or more reliable verified and timely data are available” on the Internet or under other mandatory statutory requirements.

Part C – Program Rules

New CAA section 721 states that none of the following constitutes a property right: emission allowance, compensatory allowance, strategic reserve allowance, and offset credit. It also lists the number of emission allowances for each year, 2012 to 2050, and thereafter.

No later than March 31, 2014, the Administrator is required to conduct an assessment of the non-HFC fluorinated gases under this title to determine whether the most appropriate point of regulation is at the gas manufacturer or importer level, or at the source of emissions downstream.

New CAA section 722 sets out compliance obligations for electricity sources, fuel producers and importers, fluorinated gas producers and importers, geological sequestration sites, industrial stationary sources, industrial fossil fuel-fired combustion devices, and natural gas local distribution companies (LDCs). Emissions from the combustion of certain fuels by electricity sources, including petroleum or coal-based liquid fuel, natural gas liquid, renewable biomass and gas derived from renewable biomass, or petroleum coke and gas derived from petroleum coke, are excluded when determining the compliance obligation. Section 722 also provides that certain gases, such as SF₆, purchased for use at a facility are not subject to the requirement to surrender allowances. Compliance requirements are phased in by 2014 for a large number of industrial stationary sources and by 2016 for natural gas LDCs. Compliance may be satisfied by offset credits (see discussion under Part D below), international emission allowances (see discussion under section 728 below), and compensatory allowances.

Part C also addresses penalties for noncompliance (new CAA section 723), emissions trading (new CAA section 724), and banking (unrestricted) and borrowing (new CAA section 725).

New CAA section 726 creates a Strategic Reserve for the purpose of establishing a cushion should prices rise faster than suggested. The reserve is created using a small percentage of allowances taken from future years in the base allocation pool. The Committee summary reports this total as 2.5 billion allowances. Applicable Strategic Reserve allowances will be offered in quarterly auctions at minimum prices, which, beginning in 2012, will be \$28/ton (constant 2009 dollars) and, starting in 2015, will be “60 percent above a rolling 36-month average” of the daily closing prices of that year’s allowance vintage. There are many limits on purchase levels. Funds raised from the sale of allowances are used to purchase offsets from international deforestation activities that are then converted to allowances at a ratio of 1.25:1 and used to replenish the reserve. Parties may elect to include privately held international offsets sold by the government in the reserve auction, though it is unclear why a party would utilize this mechanism versus simply selling offsets on the open market. Also, the Administrator is required to write rules such that any GHG used as an input in the production of algae-based fuels is not counted again when that fuel is combusted.

New CAA section 727 is related to permitting for stationary sources under CAA title V. Any such permits issued by the Administrator or by a state with an approved program shall require a covered entity to hold a number of emission allowances at least equal to the total annual amount of CO₂e for which allowances must be held by the entity under compliance section 722. The bill states that failure to have an approved permit or compliance plan will not require termination of operations at the covered source. The Administrator must promulgate regulations to implement this section.

New CAA section 728 also is related to compliance section 722 and allows for international emission allowances from foreign governments if: 1) they impose mandatory absolute tonnage limits on GHGs, and 2) their programs are at least as stringent as the program established by H.R. 2454 (including comparable monitoring, compliance, enforcement, offsets quality and restrictions on the use of offsets). Allowances are disqualified if they do not meet the first restriction, and presumably would be disqualified if they do not meet the second set of restrictions. (See also discussion of new CAA section 743 in Part D below.)

Part D – Offsets

Offsets are addressed in new CAA section 722(d), as well as Part D. In the compliance section, a total annual limit towards compliance of 2 billion tons of offsets is established. Domestic offsets can be used for compliance on a 1:1 basis. International offsets can be used for compliance on a 1:1 basis through 2017. Starting in 2018, a covered entity must hold 1.25 international offset credits in lieu of an emission allowance. A formula limits the percentage of offsets that may be used by a covered entity in any year to satisfy compliance obligations. Offsets generally must come half from domestic sources and half from international sources, although the latter can be modified by the Administrator to allow up to 1.5 billion tons if it is projected that less than 900 million tons will be available from domestic sources at allowance price levels.

Covered entities also can use non-expired “term offset credits” for temporarily demonstrating compliance (up to 5 years), but the combination of domestic offset credits and term offset credits cannot exceed the overall percentage limitation on the use of domestic offsets for covered entities. A term offset credit expires in the year after its term ends, and the term is calculated by adding to the year of issuance the number of years the project is expected to last, but no more than 5 years. When the term offset credits expire, covered entities using them must hold either allowances or domestic offset credits, or new term offset credits.

Covered entities that use term offset credits also must demonstrate that they have the financial ability to purchase the necessary replacement credits (either allowances or domestic offset credits). Funds from the Strategic Reserve are used, in part, to purchase international offset credits from reduced deforestation activities, which are then retired and reissued at a 1.25:1 ratio for compliance use. Holders of international offset credits from reduced deforestation activities can ask the Administrator to sell those allowances as part of the Strategic Reserve auction.

In Part D, an Offsets Integrity Advisory Board (new CAA section 731) and Offsets Program (new CAA section 732) are established, including the establishment of an offset registry. EPA must promulgate regulations for the offset program within 2 years of enactment. New CAA section 733 describes the procedures for the development and periodic modification of the list of eligible project types, including the establishment of such a list within 1 year of enactment. New CAA sections 734 to 739 establish numerous requirements for offsets projects. The Administrator must establish methodologies addressing additionality, baselines, measurement, leakage, uncertainty, and potential reversals, both intentional and unintentional (*e.g.*, offsets reserves, insurance) (new CAA section 734). The Administrator must specify a crediting period for each project type (***between 5 to 10 years except for sequestration projects***). Project developers must petition EPA for approval (new CAA section 735). EPA is to develop verification protocols, and verification by a third-party is necessary (new CAA section 736). There shall be random audits of projects and verifiers (new CAA section 738). Methodologies must be reviewed every 5 years (new CAA section 739).

New CAA section 740 provides for an early offset supply for offset projects started after January 1, 2001, and for credits issued under a regulatory or voluntary GHG offset program established prior to 2009, provided those credits have been verified by a state regulatory agency or an accredited third-party independent verification body, and that all credits are registered publicly with individual serial numbers assigned for each ton of CO₂e emission reductions or sequestration. Offset credits are ineligible if used for compliance under a program established under state law. Finally, offset credits are available for projects starting after January 1, 2001, but only for reductions, avoidances and sequestrations from those projects between January 1, 2009, and ***3 years after the date of enactment***. Certain offsets programs not established under state or tribal law, or not

established prior to January 1, 2009, can apply to the Administrator for approval. A deadline is added for EPA to make a determination within 180 days of an application.

New CAA section 741 requires the Administrator, if forestry or land management-related projects are listed as eligible, to consult with appropriate federal agencies and to develop regulations for the selection and use of species in such projects.

New CAA section 743 addresses international offsets credits, which may only be issued if the United States is a party to a bilateral or multilateral agreement or arrangement that includes the country in which the project has occurred. This section allows credits from developing countries: 1) under a sector-based program; 2) via credits issued by an international body established pursuant to the U.N. Framework Convention on Climate Change (U.N. FCCC), Kyoto Protocol, or successor “treaty”; and 3) under offsets from reduced deforestation. Sector-based credits are for developing countries with high levels of GHG emissions or economic development, ***and are issued only for the quantity of reductions achieved across the relevant sector “relative to a domestically enforceable baseline level of absolute emissions” established in the arrangement or agreement. Sector baselines shall be established on an absolute basis and at levels lower than would occur under business-as-usual.*** Offset credits issued by an international body established pursuant to the United Nations Framework Convention on Climate Change or related agreement also can be used for compliance. ***Starting in 2016, such offsets shall not be accepted for projects in countries subject to sector-based programs.***

EPA, with the Department of State and the U.S. Agency for International Development (U.S. AID), can promulgate regulations regarding offsets from reduced deforestation projects in eligible developing nations. EPA would work with an international body to issue credits for acceptable offset projects in eligible nations. Sub-national (state, province) projects to reduce deforestation can be approved in some circumstances, but credits are phased out beginning 5 years after the first calendar year for which covered entities must demonstrate compliance (with a potential 8-year extension for projects in certain low-emitting nations). Local stakeholder interests must be considered. In 2017, and every 5 years thereafter, the Advisory Board must submit a scientific review of deforestation research programs to EPA. There can be no double counting of these credits with non-U.S. programs or with Part E (Supplemental Emissions Reductions from Reduced Deforestation). ***The Administrator must consult with the Secretary of Agriculture in implementing the reduced deforestation international offset program.***

This section allows forestry offset projects that meet numerous requirements if included on a list of eligible projects by EPA. Projects must be ecologically sound, use native species, enhance biological diversity, and follow sustainable forestry practices. There also are numerous requirements for reduced deforestation offset activities related to national deforestation baselines, monitoring, uncertainty, and ecological soundness. These include safeguarding the rights of, and sharing profits with, local communities.

Part E – Supplemental Emissions Reductions From Reduced Deforestation

New CAA section 704 and this part of the bill call for supplemental reductions equivalent to 10 percent of U.S. GHG emissions in 2005 by 2020 (720 million tons of CO_{2e}) and a cumulative 6 billion tons of CO_{2e} by the end of 2025, which are to be met through activities to reduce emissions from deforestation and forest degradation in developing countries (REDD). Reduced deforestation accounts for roughly 20 percent of GHG emissions globally. The bill establishes a funding mechanism for international forest carbon projects through 5 percent, 3 percent and 2 percent set-asides of allowances from the emissions cap (over 2012 to 2050) and from the strategic allowance reserve auction.

The U.S. government is mandated to use this money to fund activities to help meet this supplemental reduction goal for REDD activities. Eligible countries must have entered into a bilateral or multilateral agreement with the U.S. Various activities can be supported (deforestation reduction, capacity building,

monitoring, leakage prevention, incentives). Some sub-national activities might be approved temporarily. Standards and goals must be established and met. EPA and U.S. AID share responsibility for the program. Reports and reviews are required. There are requirements regarding safeguarding the rights of, and sharing profits with, local communities. Activities funded through this mechanism cannot be used as international offsets credits.

Subtitle B – Disposition of Allowances

Part H – Disposition of Allowances

New CAA section 781 directs the Administrator to allocate allowances [established under new CAA section 721(a)] for supplemental emissions reductions from reduced deforestation. Allowances are to be distributed in accordance with Part E, with 5 percent for 2012 to 2025, 3 percent for 2026 to 2030, and 2 percent for 2031 to 2050.

New CAA section 782 sets forth the schedule for the Administrator for (1) allocation of emission allowances and (2) auction of some emission allowances in the following categories (which are allocations unless auctions are indicated):

- Electricity consumers – 43.75 percent for 2012 and 2013,² 38.89 percent for 2014 and 2015,³ 35 percent for 2016 to 2025, 28 percent for 2026, 21 percent for 2027, 14 percent for 2028, and 7 percent for 2029, after which the allocation to electricity consumers is completely phased out.
- *Small electricity LDCs—for energy efficiency, renewable energy and low-income ratepayer assistance—0.5 percent for 2012 to 2025, 0.4 percent for 2026, 0.3 percent for 2027, 0.2 percent for 2028, and 0.1 percent for 2029.*
- *Cogeneration facilities at industrial parks – 0.35 percent for 2012.*
- Natural gas consumers – 9 percent for 2016 to 2025, 7.2 percent for 2026, 5.4 percent for 2027, 3.6 percent for 2028, and 1.8 percent for 2029.
- Home heating oil and propane consumers – 1.875 percent for 2012 and 2013, 1.67 percent for 2014 and 2015, 1.5 percent for 2016 to 2025, 1.2 percent for 2026, 0.9 percent for 2027, 0.6 percent for 2028, and 0.3 percent for 2029.
- Low-income consumers – 15 percent shall be auctioned annually by the Administrator, with the proceeds to fund the Consumer Assistance program established in title IV, subtitle C of the bill.
- Trade-vulnerable industries (energy-intensive, trade-exposed entities) – 2 percent for 2012 and 2013,⁴ 15 percent for 2014, and on a declining basis thereafter through 2050 as set forth in the bill.
- Deployment of CCS technology – 1.75 percent for 2014 to 2017, 4.75 percent for 2018 to 2019, and 5 percent for 2020 to 2050, in accordance with new CAA section 786.
- Investment in energy efficiency and renewable energy—in accordance with section 132 in support of state renewable energy and energy efficiency programs—9.5 percent for 2012 to 2015, 6.5 percent for 2016 to 2017, 5.5 percent for 2018 to 2021, 1 percent for 2022 to 2025 (plus 3.55 percent of allowances for years after each vintage year during 2022 to 2025), and 4.5 percent 2026–2050. In accordance with section 201 on greater energy efficiency in building codes, 0.5 percent for 2012 to 2050. *In accordance with section 202 on building retrofits, 0.05 percent for 2012 to 2017 and 0.03 percent for 2018 to 2050.*

² The allocation to the electric power sector is adjusted to this level for two years because industrial capped sources are not covered until 2014.

³ The allocation to the electric power sector is adjusted to this level for two years because natural gas LDCs are not covered until 2016.

⁴ Note: These allowances are allocated even before these industries are covered in 2014, limited to covering increased costs of electricity.

- ***Energy Research and Development – for Energy Innovation Hubs, 0.45 percent for 2012 to 2050 in accordance with section 171, and for Advanced Research Project Agency-Energy, 1.05 percent for 2012 to 2050 in accordance with section 172.***
- Investment in the development of clean vehicle technology – 3 percent for 2012 to 2017 and 1 percent for 2018 to 2025 in accordance with section 124.
- Domestic fuel production – 2 percent to domestic refiners ***and 0.25 percent for small business refiners*** for 2014 to 2026 in accordance with new CAA section 787.
- Investment in workers – the Administrator shall auction 0.5 percent for 2012 to 2012 and 1 percent for 2022 to 2050 for workers.
- Domestic adaptation – in accordance with section 453 on state programs to build resilience to climate change impacts, 0.9 percent for 2012 to 2021, 1.9 percent for 2022 to 2026, and 3.9 percent for 2027 to 2050. Also, the Administrator shall auction 0.1 percent annually, with the proceeds being deposited in the Climate Change Health Protection and Promotion Fund established by section 467.
- Wildlife and natural resource adaptation – allocates the following amounts annually to state agencies for wildlife and natural resource adaptation: 0.385 percent for 2012 to 2021, 0.77 percent for 2022 to 2026, and 1.54 percent for 2027 to 2050. In addition, in accordance with section 480(a), the Administrator shall auction 0.615 percent for 2012 to 2021, 1.23 percent for 2022 to 2026, and 2.46 percent for 2027 to 2050, with the proceeds being deposited in the Natural Resources Climate Change Adaptation Fund.
- International adaptation – 1 percent for 2012 to 2021, 2 percent for 2022 to 2026, and 4 percent for 2027 to 2050 for international adaptation in accordance with title IV, subtitle E, part 2.
- International clean technology deployment – 1 percent for 2012 to 2021, 2 percent for 2022 to 2026, and 4 percent for 2027 to 2050 for international clean technology deployment in accordance with title IV, subtitle D (Exporting Clean Technology).
- Release of future allowances – the Administrator shall auction future-year allowances in these strings: 0.70 billion annually for 2014 to 2019, 0.50 billion annually for 2020 to 2025, and 0.3 billion annually from 2026 to 2030, with an equal number of allowances for each vintage year 12 to 17 years after the auction year.
- Deficit reduction – proceeds are deposited in the Treasury from these Administrator auctions: (1) for 2012 to 2025, for allowances not designated for distribution or auction under new CAA sections 781, 782(a)-(o), (s) ***and (t)*** and 790; (2) for allowances allocated under new CAA sections 782(a)-(o), (s) ***and (t)*** and not distributed by March 31 of the following year; and (3) for 2015 to 2020, for auctions under new CAA section 782(p).
- Climate change consumer refunds – the Administrator shall auction for 2026 to 2050 any allowance not designated for distribution or auction under new CAA section 782(a)-(p) and any allowances allocated annually under new CAA section 782(a)-(o) and not distributed by March 31 of the following year and place the proceeds in the Climate Change Consumer Refund Account. In addition, for auctions conducted in 2021 and thereafter under new CAA section 782(p), the proceeds shall be deposited in the Climate Change Consumer Refund Account. Funds deposited in this Account shall be used as specified in new CAA section 789 for tax refunds and shall be available for expenditure without further appropriation or fiscal year limitation.
- ***Compensation for early actors – 1 percent for 2012 for early action offsets credits under new CAA section 795.***
- ***Supplemental agriculture and renewable energy – 0.28 percent for 2012 to 2016 for supplemental agricultural incentives and renewable energy incentives programs under new CAA section 788.***

Electricity Consumers. New CAA section 783 allocates allowances within the electricity sector. Under new CAA section 782(a)(1), after 2015, 35 percent of all allowances go to the electricity sector. New CAA Section 783 provides that 30 percent of all allowances go to LDCs and 5 percent of all allowances go to merchant coal generators (MCGs) and other generators with long-term power purchase and cogeneration agreements

[qualifying facilities (QFs) and independent power producers (IPPs)]. Since the merchant coal share is capped at 10 percent of the electricity sector's share (or 3.5 percent), approximately 1.5 percent are for the long-term power purchase agreements. ***Under new CAA section 782(a)(2), an additional 0.5 percent of allowances are provided for small LDCs.*** These allowances phase out from 2026 to 2030. ***New CAA section 783(a)(3) provides an additional 0.35 percent of all allowances "to avoid disincentives to the continued use of energy efficient cooperation at industrial parks."*** ***The criteria for distribution and use of all of these allowances are set forth in new CAA section 783.***

Electricity LDCs. As with the EEI proposal, 50 percent of allowances are allocated "ratably" based on the LDC's share of emissions and 50 percent are allocated "ratably" based on the LDC's share of "deliveries." For allowances based on emissions in 2012 and 2013, an LDC may select any 3 consecutive years between 1999 and 2008 as the base period (with 2006 to 2008 as the default). For 2014 and after, the emissions base period may be that used in 2012 and 2013 or for LDCs with new units that are not fully operational before 2012, the base period may be 2012 solely. ***EPA, working with the Energy Information Administration (EIA), shall determine the emissions attributable to the electricity delivered at retail.***

For allowances based on deliveries, an LDC may select any 3 consecutive years between 1999 and 2008 (with 2006 to 2008 as the default). The deliveries base period is updated every 3 years by the product of an LDC's average annual customer deliveries during its selected base period times the number of its customers in the most recent year in which the formula is updated.

EPA regulations "shall ensure" that no LDC shall receive "a greater quantity of allowances...than is necessary to offset any increases electricity costs" to its "retail ratepayers" due to enactment of new CAA title VII. Any allowances withheld under this provision will be distributed to other LDCs ratably based on emissions.

The allowances to LDCs must be used exclusively "for the benefit of retail ratepayers" and must be distributed "ratably" among ratepayer classes "based on electricity deliveries to each class" and "equitably" within each ratepayer class. ***Generally, no*** rebate may be based solely upon the quantity of electricity delivered to each ratepayer, and rebates shall, to the extent practicable, be applied to the fixed portion of a bill. ***However, for industrial ratepayers, an LDC shall pass through its ratable share (based on deliveries to each ratepayer class) of the value of the allowances distributed under this provision to reduce the electricity cost impacts of CAA title VII. It may do so based upon the quantity of power delivered to individual industrial ratepayers. EPA shall prescribe guidelines regarding the use of allowances for the benefit of ratepayers after consultation with state public utility commissions (PUCs).***

A state PUC must promulgate a regulation or complete a rate proceeding to implement these requirements before an LDC may receive emission allowances. The PUC must report its plans for the disposition of the allowances to EPA. This must be updated every 5 years. Each LDC is required to report annually to its PUC and EPA on its disposition of these allowances. EPA retains enforcement authority.

Merchant Coal Generators. Allowances to each MCG are calculated as 50 percent of the product of its number of qualifying emissions ***from merchant coal unit sales*** in each year times its average CO₂ emissions per MWh during the base period (less emissions sequestered or from non-covered sources) times an adjustment factor to phase-in any changes in allocations to the electric sector in any year. (The adjustment factor is the ratio of allowances to the electricity sector in any year divided by the number of allowances given to the electricity sector in 2012.) ***The base period is 2006 to 2008, or for new merchant coal units the first full calendar year of operation if operations commence before 2012; 2012 if operations commence between January 1 and September 30, 2012; and 2013 if operations commence between October 1, 2012, and December 31, 2012.***

By July 1, 2014, EPA must complete a study to determine whether this allocation formula results or is likely to result in “windfall profits” or “substantially disparate treatment” of generators in different markets or regions. If EPA makes an affirmative finding, it shall adjust the allocation formula “to mitigate to the extent practical” any “windfall profits” or “disparate treatment.” MCGs may receive no more than 10 percent of the total emission allowances available to the electricity sector in any year.

A unit may not receive allowances under the merchant coal provisions in any year in which it receives allowances as a long-term contract generator.

Generators with Long-Term Power Purchase Agreements. Certain QFs and IPPs (including cogenerators) with long-term power sales *or thermal sales* agreements *executed before March 1, 2007*, that do not allow for recovery of the costs of compliance with the GHG limits of this title may receive allowances for 100 percent of their emissions until 2030 unless they no longer qualify as a QF or the contract expires, is terminated, or modified. *Such generators must provide EPA with documentary proof of their qualification, including each qualifying electric or thermal sales agreement. Such generators may receive in total no more than 4.3 percent of the allowances available to the electricity sector.*

Small LDCs. *The Administrator shall provide an additional 0.5 percent of all allowances to be distributed to small LDCs (those that delivered less than 4 million MWh of electricity directly to retail customers in the preceding year), which shall be distributed ratably based on emissions. Such allowances shall be used exclusively for cost-effective electricity savings programs, deployment of renewable technologies, and programs to reduce electricity costs for low-income residential customers. Efficiency savings and renewable energy funded by such allowances shall not qualify for renewable energy or efficiency credits under the federal CERES adopted by this Act. EPA shall, after consultation with FERC, prescribe rules to assure compliance with this subsection.*

Certain Cogeneration Facilities. *An additional 0.35 percent of all allowances are authorized to qualifying cogeneration facilities, larger than 100 MW, in operation as of January 1, 2009, which are not eligible to receive allowances under any other subsection of this section or under the industrial customer part of this title. Allowances shall be ratably based on the facility’s carbon emissions in 2006 to 2008, provided that EPA may not distribute allowances “in excess of the amount necessary to offset such facility’s cost of compliance” with CAA title VII in that year, and may distribute any excess allowances in later years until 2025. The value of such allowances shall be passed through on an equitable basis to the recipients of electricity or steam from such covered facilities.*

Natural Gas Consumers. New CAA section 784 addresses allocated allowances to natural gas LDCs that are covered entities. The initial formula is based on annual average retail natural gas deliveries for 2006 to 2008 unless the owner or operator chooses 3 other consecutive years between 1999 and 2008. The Administrator shall update the distribution formula prior to distributing 2019 allowances and every 3 years thereafter, reflecting changes in each gas LDC’s service territory.

Allowances shall be used exclusively for the benefit of retail ratepayers of natural gas LDCs, and may not be used to support natural gas sales to entities or persons other than those retail ratepayers. No natural gas LDC may use allowances to provide to any ratepayer a rebate that is based solely on the quantity of natural gas delivered to the ratepayer. To the extent a natural gas LDC uses the value of allowances to provide rebates, it shall provide such rebates with regard to the fixed portion of ratepayers’ bills or as a fixed creditor rebate on natural gas bills. At least one-third of the value of allowances shall be used for cost-effective energy efficiency programs for natural gas consumers; such programs must be authorized and overseen by the state regulatory authority or, in the case of a natural gas LDC not regulated by such authority, by the entity with regulatory authority over retail natural gas rates. All natural gas LDCs are required to submit a report to the Administrator regarding the use of allowances and are subject to an audit.

New CAA section 785 addresses allocated allowances to home heating oil and propane consumers. The distribution of allowances among the states by the Administrator shall be ratably based on the ratio of the carbon content of home heating oil and propane sold to consumers within each state to the carbon content of home heating oil and propane sold to consumers within the U.S. States shall use allowances exclusively for the benefit of consumers of home heating oil or propane for residential or commercial purposes. Proceeds shall be used exclusively for such consumers for: (1) cost-effective energy efficiency programs; or (2) rebates or other direct financial assistance programs.

The Committee bill's new CAA section 786 is now found in title 1, subpart 1, section 115 regarding bonus allowances for CCS.

New CAA section 787 establishes an emission allowance rebate from 2014 to 2026 for owners and operators of petroleum refineries *and small business refiners*. Two years after enactment of this section, the Administrator shall issue regulations for the distribution of emission allowance rebates. The rebate is based on the use of intensity and production factors. Those who sell electricity to the owners or operators of petroleum refineries must provide "such data as the Administrator determines is necessary" to both the owner/operator and the Administrator. [This section was previously found in title IV, Part G.]

New CAA section 788 *establishes supplemental emission allowance incentives for certain specified agricultural activities and for state and local governments for the deployment of renewable energy infrastructure.*

New CAA section 789 establishes an annual tax refund to be distributed by the Secretary of Treasury on a per capita basis to each household in the U.S. from the amount deposited into the Climate Change Consumer Refund Account.

New CAA section 790 allows the Administrator to exchange GHG emission allowances issued before December 31, 2011, by California, or for the Regional Greenhouse Gas Initiative or the Western Climate Initiative, for an emission allowance established under new CAA section 721(a). Allowances distributed under this section are deducted from allowances to be auctioned under new CAA section 782(b).

New CAA section 791 establishes procedures for the auction of future emission allowances. The Administrator is required to develop regulations within 12 months of enactment to govern the auctions, including: that auctions will take place quarterly, follow a certain form, and involve allowances from the same vintage year and from future vintage years; requirements for financial assurance and ownership disclosure; and purchase limits. These regulations can be revised at any time by the Administrator. The first auction shall be held by March 31, 2011. The minimum reserve auction price is \$10/ton (in constant 2009 dollars) for auctions in 2012, and it then increases by 5 percent per year plus inflation. *A sizable small business refiner reserve is established with auctioned allowances in amounts equal to 6.2 percent for 2012 to 2013, 5.4 percent for 2014 to 2015, and 4.9 percent for 2016 to 2024.*

New CAA section 792 allows any entity holding emission allowances or compensatory allowances to request the Administrator to auction such allowances on consignment. The Administrator is not obliged to obtain the highest price possible for the allowances but may allow them to be offered at a minimum price different than the minimum reserve auction price.

New CAA section 793 establishes in the U.S. Treasury separate accounts for the Strategic Reserve Fund, the Climate Change Consumer Refund *Account*, and the *Climate Change Worker Adjustment Assistance Fund*.

New CAA section 794 requires the Comptroller General to review the administration and effectiveness (of creating and preserving jobs, reducing emissions, developing clean technologies, etc.) of each federal government program that allocates or auctions allowances, including recommended changes.

New CAA section 795 directs EPA to issue regulations governing the exchange of early action offset credits for allowances allocated pursuant to new CAA sections 740(a)(2) and 782(t).

Subtitle C – Additional Greenhouse Gas Standards

TITLE VIII – ADDITIONAL GREENHOUSE GAS STANDARDS

Part A – Stationary Source Standards

No performance standard shall be established under CAA section 111 to address GHG emissions from a capped source. However, performance standards may be used to address emissions from capped sources that affect air quality “because of effects that do not include climate change effects.” EPA must create an inventory of larger uncapped sources and eventually promulgate performance standards designed to cut GHG emissions from uncapped sources. Performance standards for uncapped sources must take into account GHG emissions, but performance standards for capped sources cannot. EPA must file a report with Congress on the costs and impacts of GHG performance standards for uncapped sources.

Part C – Exemptions From Other Programs

GHGs are exempted from several CAA programs. CO₂ and other GHGs may *not* be regulated as criteria air pollutants (like ozone or particulate matter), and therefore there would be no GHG national ambient air quality standards (NAAQS). CO₂ and other GHGs may not be listed as hazardous air pollutants based on their effect on climate change. GHG emissions should not be considered in the need to apply for or operate under a CAA title V permit. In addition, provisions dealing with international air pollution do not apply to GHGs. Regarding New Source Review, the applicable program is part C, Prevention of Significant Deterioration (PSD). The bill says that PSD “shall not apply to a major emitting facility that is initially permitted or modified after January 1, 2009, on the basis of its emission of a greenhouse gas.” While it is clear that the PSD exemption for GHGs is prospective, the language does not clarify how PSD might apply for GHG emissions from facilities modified before 2009.

Hydrofluorocarbon (HFC) emissions production and consumption are addressed in a replacement CAA section that creates an allowance-based cap-and-trade system to reduce HFCs 85 percent by 2032, with 90 percent of allowances auctioned in 2020 and after (after starting with a 10-percent auction in 2012).

Part E – Black Carbon

New CAA section 851 addresses black carbon (soot), which is the product of incomplete combustion of fossil fuels or biomass. A report on emission sources and control options is due to Congress 1 year after enactment. EPA also is directed to propose regulations within 1 year of enactment, with final regulations in 2 years. The only sources of black carbon emissions noted are related to diesel transportation, forest and agriculture burning, and residential cooking and heating using solid fuels in developing nations. A report on international black carbon emissions mitigation is due to Congress 1 year after enactment.

Part F – Miscellaneous

In order to give the federal carbon market time to develop, the bill effectively suspends state and regional cap-and-trade programs from 2012 to 2017 through the addition of new CAA section 861. States will have the right to run their own cap-and-trade program after 2017, but they presumably will lack the incentive to do so if the federal market is functioning well. New CAA section 861 explicitly recognizes states’ authority to address emissions from mobile sources despite the temporary ban on state and local cap-and-trade programs.

Amendments to CAA section 116 also explicitly recognize states' right to cap GHG emissions, and require the use or surrender of allowances to comply with state reduction programs that are not cap-and-trade programs.

EPA is authorized to make grants to state and local air pollution control agencies to assist in the implementation of the Safe Climate Act (new CAA titles VII and VIII).

Amendments to the CAA's enforcement provisions direct courts to remand, but not vacate, EPA actions deemed to be arbitrary, capricious or otherwise unlawful if a remand would undermine the protection of human health or the environment. *If a court remands a matter to the Administrator, EPA has 1 year or the time originally allowed for the action, whichever is shorter, to complete final action. The court can enforce or modify this deadline, if necessary.* In addition, petitions for reconsideration are deemed to be denied if the Administrator does not act within 150 days, allowing the petitioner to proceed to the federal courts.

Section 338. Davis-Bacon Compliance

Anyone receiving emissions allowances or funding under the Act "shall provide reasonable assurance that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to this Act" . . . will be paid all prevailing wages. (This language expands upon the Davis-Bacon provisions in section 114.) Exceptions include retrofitting a residential building or commercial building smaller than 6,500 square feet.

Section 339. National Strategy for Domestic Biological Carbon Sequestration

EPA—in consultation with DOE, USDA, DOI, and other agencies as the President may designate—shall within 1 year of enactment submit to Congress a report setting forth a unified and comprehensive strategy to address the key legal, regulatory, technological, and other barriers to maximizing the potential for sustainable biological sequestration of carbon in the United States.

Section 340. Reducing Acid Rain and Mercury Pollution

EPA, no later than 18 months after enactment, shall submit to Congress a report that analyzes the effects of different carbon reduction strategies and technologies (including CCS for new and existing power plants) on emissions of mercury, sulfur dioxide (SO₂), and nitrogen oxides (NO_x). The report shall assess hurdles to strategies that could cost effectively reduce emissions of multiple pollutants and make appropriate recommendations.

Subtitle D – Carbon Market Assurance

Section 341. Carbon Market Assurance

This section amends the FPA by creating a new "Part IV—Carbon Market Assurance."

Part IV—Carbon Market Assurance

This part gives FERC broad authority to regulate the allowances, offsets, and renewable energy credit trading markets, including authority to set position limits and margin requirements in these over-the-counter (OTC) markets, and to set limits on counterparty risk. The definition of "regulated allowance" includes emission allowance, compensatory allowance, offset credit, or "federal renewable electricity credit." There is no requirement for OTC transactions to be conducted or cleared on an exchange. To enforce violations of any rules or orders issued pursuant to its authority to oversee the regulated allowance market, FERC can collect up to \$1 million in civil penalties per day per violation; order restitution or disgorgement of unjust profits; issue cease and desist orders; and suspend or revoke trading privileges of traders and exchanges. FERC is required to collect fees, initially set at not more than \$15 per \$1 million of transaction value to cover its costs of regulating the market. This fee is subject to annual review and adjustment. FERC is required to report to Congress on additional staffing needs for market oversight and, subject to appropriations, appoint additional staff.

Subtitle D gives FERC broad new authority to issue cease and desist orders or orders preventing the dissipation or conversion of assets in connection with alleged or suspected violations of any part of the FPA or any rules or orders thereunder.

New FPA section 401(b)(3)(C) would allow FERC—if it determines that any entity “may be violating, may have violated, or may be about to violate” any provision of ***this part or any restriction, condition or order [issued by] the Commission under this Act***⁵—to issue an order requiring the entity to cease and desist from the violation or threatened violation. Additionally, new FPA section 401(b)(3)(D) would allow FERC, if it determines that an alleged violation of a regulation or order (or related circumstances) is likely to result in significant dissipation or conversion of assets, to issue a temporary order requiring the entity to take actions necessary to prevent the dissipation or conversion of assets (*i.e.*, to “freeze” the entity’s assets). Regarding cease-and-desist orders and orders preventing the dissipation of assets, FERC must first provide notice and opportunity for hearing, unless doing so “would be impracticable or contrary to the public interest.”

The Commodities Exchange Act is modified to assign the Commodities Futures Trading Commission (CFTC) full oversight over the derivatives markets for allowances, offsets, and renewable energy credits. ***All derivative transactions must occur on regulated exchanges, barring customized OTC derivative transactions common in the existing SO₂ and NO_x markets. The exemption provided for “offset creation contracts,” created in the Committee-reported bill, was removed from the legislation. Committee staff believes that under existing CFTC authority, such an exemption already is allowed and no specific legislative language to accomplish this is required.***

Subtitle D also authorizes a fine of up to \$25 million or imprisonment for up to 20 years for directly or indirectly and knowingly engaging in market manipulation, false reporting (including knowing omission of a material fact), or other fraudulent and deceptive activities in connection with a transaction involving a “regulated instrument.”

This authority applies in place of existing FPA section 316(a) (providing general penalty authority for violations of the FPA) with respect to market manipulation, false reports, or fraudulent activities in the regulated allowance market. The bill also contains language clarifying the application of existing FPA provisions concerning preservation of books and records, reporting, and enforcement in the context of FERC’s authority to oversee regulated allowance markets.

FERC, in conjunction with the CFTC, is required to collect and analyze market data continually, including changes in the “roles, activities or strategies” of market participants, and report on such data analyses annually to the President and Congress.

Subtitle E – Additional Market Assurance

This subtitle modifies the Commodities Exchange Act (CEA) to give the CFTC broad jurisdiction over energy derivative transactions. It defines an energy commodity to include coal, crude oil, gasoline, diesel fuel, jet fuel, heating oil, propane, electricity, natural gas, and any other substance used as a source of energy. It sets forth explicit conditions for regulating energy commodities by the CFTC. (The text draws heavily on H.R. 6330, the Prevent Unfair Manipulation of Market Price Act of 2008, introduced by Representative Bart Stupak in the 110th Congress.)

Recognizing that Congress and the Administration are pursuing on a separate track comprehensive legislation that would change oversight of financial and commodities markets, section 358 provides that

⁵ The Stupak Amendment, adopted in Committee, purported to delete references to “part” and replace them with “Act” in FPA section 401(b)(3)(C)(i) as originally drafted, which would expand the cease and desist authority to the entire FPA (rather than apply it just to “Part IV-Carbon Market Assurance”). However, the final printed bill passed in the House deletes only the second reference to “part” in this subsection, substituting “Act.”

regulation of energy commodity derivatives markets promulgated pursuant to subtitle E as described above would be repealed automatically upon passage of that legislation.

Section 359 of this subtitle grants FERC broad cease and desist authority, including the authority to prevent dissipation of assets by a respondent to a cease and desist order, under the Natural Gas Act and Natural Gas Policy Act. [This authority is somewhat similar to, but not the same as, the cease and desist and dissipation of assets authorities granted to FERC in the FPA (see subtitle D above).]

TITLE IV – TRANSITIONING TO A CLEAN ENERGY ECONOMY

Subtitle A – Ensuring Real Reductions in Industrial Emissions

Title VII of the CAA (as added by this legislation) is amended to include a new Part F – Ensuring Real Reductions in Industrial Emissions.

Subpart 1 – Emission Allowance Rebate Program

This subpart provides a mechanism for “rebating” emissions allowances to industries that are both trade-exposed and energy- or GHG-intensive. Very high energy- or GHG-intensive industries that are not trade exposed also may qualify for rebates. Allowances are allocated to this program as described in new CAA section 782(e). EPA has until June 30, 2011, to publish a list of eligible industrial sectors and the rebate per unit of production for the next 2 calendar years. EPA must update this list in 2013 and then subsequently at least every 4 years, using the most recent data available.

Individual entities can petition EPA to designate their industrial sector as eligible for rebates. New industrial sectors and new entrants to an eligible industrial sector also qualify for allowance rebates. Petroleum refiners, which receive allowances through the separate program described in new CAA section 771, specifically are excluded from participating in this allowance rebate program.

Rebates are based on the sum of a covered entity’s direct and indirect carbon factors. Direct carbon factors are equal to the product of a covered entity’s average output and its average direct GHG emissions (as determined by EPA). Indirect carbon factors relate to an entity’s electricity use and intensity. The indirect emissions-factor calculation attempts to account both for an entity’s increased electricity costs as a result of the cap (electricity emissions intensity factor) and the amount of electricity it uses per unit of output (electricity efficiency factor). Suppliers of electricity are required to provide necessary information about electricity sales to industrial sources and EPA to help make relevant determinations and calculations.

Allowance rebates are capped in three ways. First, EPA cannot award rebates in excess of the allowances allocated for a particular year. Second, to encourage energy efficiency, an entity’s electric emissions-intensity factor must decline from year to year. The GHG-intensity factor also must decline annually. Third, because allowances allocated to this program are scheduled to phase out by 2035 at the latest—and may be phased out earlier if the President makes a determination that, for an eligible sector, more than 85 percent of the global output for that sector is produced in countries that are part of international, multilateral, or bilateral efforts to reduce emissions, ***or in countries in which the energy or GHG intensity of that sector is equal to or less than that in the United States*** (as described in new CAA section 767 below)—calculated rebates are reduced to reflect the diminishing number of allowances allocated to the rebate program.

Industrial sources are not subject to the national emissions cap until 2014, but are eligible for allowance rebates in the period 2012 to 2013 to cover their indirect emissions factors. Two percent of allowances are allocated for this purpose in 2012 and 2013. Entities that are members of eligible industrial sectors but that are not covered entities as defined in new CAA section 700(13) receive allowance rebates equal to their indirect emissions factor for the life of the rebate program. As noted above, the indirect emissions factor is designed to

address increased electricity prices as a result of the emissions cap. To the extent that an eligible entity's electricity provider received a free allocation of allowances to benefit consumers [as described in new CAA section 782(a)], EPA is required to adjust the indirect emissions factor to reflect the reduced electricity costs incurred by the entity.

Subpart 2 – Promoting International Reductions in Industrial Emissions

Subpart 2 is modeled (at least in part) on the International Brotherhood of Electrical Workers–American Electric Power proposal contained in several previous climate bills, and would—*effective no earlier than January 1, 2020—impose a tariff (in the form of required allowances to import a product) on covered goods imported from countries with which a GHG-reduction agreement has not been negotiated with the United States. New CAA section 765 states that it is the policy of the United States to negotiate agreements to require all major GHG-emitting countries to contribute equitably to GHG reduction. It also requires the President to notify foreign countries of the new U.S. stance on climate change, request that foreign countries take measures to limit GHG emissions, and warn that, beginning January 1, 2020, the U.S. may impose its new GHG emissions limits on imported covered goods. New CAA section 766 provides parameters for negotiating multilateral environmental agreements.*

New CAA section 767 requires the President to submit biennial reports to Congress by January 1, 2017, regarding the effectiveness of emission allowance rebates under subpart 1—including the benefit the industrial sector receives from allowances to electricity providers—in mitigating the risk of increased GHG emissions in foreign countries as a result of compliance costs incurred by domestic entities under title VII.

The bill also provides that if a multilateral agreement consistent with the objectives described in section 766 has not entered into force by January 1, 2018, then the President shall establish an international reserve allowance program (IRAP). Such a program can be waived for an industrial sector if the President certifies, and Congress confirms, that such a waiver would be in either the national economic or national environmental interest of the United States. The President also is required to determine by June 30, 2018, and every 4 years thereafter, whether more than 85 percent of global output of each sector eligible for rebates under subpart 1 is produced in countries that meet at least one of several criteria. If the President determines that 85 percent or less of global output of a sector is produced in countries that meet one or more of the criteria, he shall: 1) assess the extent to which the rebates received under subpart 1 and the benefit received by that sector from the free allocation of allowances to electricity providers—as well as the international reserve allowance program—has mitigated or addressed carbon leakage in that sector; 2) modify the direct and indirect carbon factor multiplication percentages; and 3) apply or continue to apply an IRAP.

New CAA section 768 establishes the IRAP program, which may not be implemented by the President any earlier than 2020. The program is to be used to address impacts on energy-intensive goods and sectors (defined generally as iron, steel, aluminum, cement, glass, pulp, paper, chemicals, and industrial ceramics). *The price for purchasing an international reserve allowance shall be equal to the most recent domestic emissions allowance auction clearing price. EPA is to establish regulations to determine how the number of allowances required for a given import will be calculated. The CAA also requires the number of international allowances released to be adjusted, possibly to zero, to reflect the value of domestic emission allowance rebates, including the value of allowances to the electric sector, under subpart 1.*

Subtitle B – Green Jobs and Worker Transition

This subtitle authorizes the Secretary of Education to award grants for education programs relating to *clean energy*, renewable energy, energy efficiency, climate change mitigation, *and climate change adaptation*. It also increases funding for worker transition from \$125 million to \$150 million *and establishes a separate Treasury account for an Energy Efficiency and Renewable Energy Worker Training Fund. It directs the Secretary of Labor, working with the Secretaries of Energy and Education, to develop an Internet-based clearinghouse to aid job training and education programs for the renewable energy sector, including solar,*

wind, transmission, geothermal, and energy efficiency. It directs the Secretary of Labor, working with the Secretary of Energy, to establish a Green Construction Careers Demonstration Program.

The subtitle establishes a new supplemental income program for workers displaced as a result of the new cap-and-trade program. Workers would be entitled to 156 weeks of income supplement, 80 percent of monthly health care premiums, and other payments and services.

Subtitle C – Consumer Assistance

Section 431 amends the Internal Revenue Code to establish an energy tax credit for eligible individuals and ensures that the application of the tax credit is coordinated with the application of the energy refund established in section 432. The size of the credit varies based on the number of individuals in the tax filing unit, but in general cannot exceed the average annual reduction in purchasing power for low-income households resulting from the GHG regulations established under CAA title VII. EPA is required to determine annually the aggregate reduction in purchasing power—which is based on the total market value of the allowances used for compliance in a year adjusted to reflect costs not incurred due to the allocation of allowances—and to distribute the reduction to households. The section also contains various descriptions for the maximum income levels eligible for the tax credit and qualifying individuals. The section also addresses tax treatment for U.S. possessions.

Section 432 establishes an energy refund program for low-income consumers. This program allows state agencies to request of EPA that eligible low-income households within the state receive a monthly cash energy refund equal to the estimated loss in purchasing power resulting from the CAA title VII GHG regulations. The section defines eligible households and requires the development of national standards for eligibility. It also requires states to set up procedures to administer the refund program, while listing numerous requirements for state programs. The monthly refund is equal to the maximum energy tax credit described in section 431 divided by 12. Information on the refunds is to be sent to each household receiving them and to the Internal Revenue Service. There is a series of definitions at the end of the section.

Subtitle D – Exporting Clean Technology

The purpose of this subtitle is to provide U.S. assistance and to leverage private resources to encourage widespread implementation of activities that reduce, sequester, or avoid GHG emissions in developing countries. The assistance is to be provided in a way that encourages these countries to adopt policies and measures that reduce, sequester, or avoid GHG emissions, and that promotes the successful negotiation of a global GHG reduction agreement under the U.N. FCCC. This subtitle includes congressional findings related to global GHG emissions, the role of developing countries, the importance of clean energy technology cooperation, and competitiveness concerns. The program in this subtitle is funded by the allocation of allowances under new CAA section 782(o), *as added by section 321 of this Act (1 percent of allowances through 2021, 2 percent from 2022 to 2026, and 4 percent from 2027 to 2050)*. An interagency group oversees the distribution of allowances from the Account and defines the type of distribution (*e.g.*, bilateral assistance). The maximum number of allowances for bilateral assistance that can be used to support any single country is 15 percent. The subtitle defines criteria for determining if a country is eligible for assistance and has a section outlining what activities qualify for assistance. The interagency group is required to establish and implement a system to monitor and evaluate the performance of the activities receiving assistance and to provide a report to Congress no later than March 1, 2012, and then annually, on the distributions from the Account and the success of the activities. The interagency group also is encouraged, where practical, to work with other U.S. foreign assistance activities. For technologies that capture and store CO₂ emissions from electric generation facilities, only the cost of retrofitting existing facilities or the incremental cost of purchasing and installing CCS technology on new facilities will be covered. The use of biomass also is limited to sustainably produced product. *This subtitle also adds language in several places to strengthen intellectual property protection rights for clean energy technology.*

Subtitle E – Adapting to Climate Change

Part 1 – Domestic Adaptation

This part includes the “Global Change Research and Data Management Act of 2009,” under which the President is directed to establish a National Climate Change Adaptation Program, ***an interagency effort to provide information about and assess U.S. vulnerability to global change, defined as changes in the global environment, headed by the White House Office of Science and Technology Policy (OSTP). OSTP is authorized \$10 million annually for fiscal years 2009 to 2014 for this program. Public participation is required in the creation of regular plans on global change research and assessment recommendations. Titles I and III of the Global Change Research Act of 1990 are repealed.***

Under the new “National Climate Service Act of 2009,” a National Climate Service is created as part of the National Oceanic and Atmospheric Administration (NOAA) to develop climate information, data, forecasts, and warnings. ***NOAA, working with the National Science Foundation, is required to provide to Congress, within 18 months of enactment, reports on the status of ice sheets and hurricane frequency and intensity.***

State, ***federal, and tribal*** programs to build resilience to climate change impacts, like increased flooding and heat waves, are funded through an allocation of allowances under new CAA section 782(l) that ranges from 0.9 percent to 3.9 percent from 2012 to 2050. States will receive a portion of these allowances based on their population, with more allowances going to states with lower per capita incomes. States are required to sell these allowances within 1 year of receipt to fund their adaptation efforts. Receipt of allowances is conditioned upon approval of a state’s climate adaptation plan.

To address public health concerns domestically and abroad, the Secretary of Health and Human Services (HHS) is required to promulgate a national strategic action for mitigating the impacts of climate change on public health in the United States and other nations, with a focus on developing nations, within 2 years of the date of enactment. As noted in new CAA section 782(l)(2), 0.1 percent of all annual allowances will be auctioned and the proceeds deposited in a newly created Climate Change Health Protection ***and Promotion*** Fund. HHS is authorized to make these funds available to other agencies or governments, including foreign governments.

The Council on Environmental Quality chair is required to advise the President on a national strategy to help natural resources adapt and become more resilient. In order to be eligible for monies in the newly created Natural Resources Climate Change Adaptation Fund, states, federal agencies, and ***tribes*** must have approved natural resources adaptation plans, which must cover a wide range of issues. ***The Secretary of the Interior is directed to create the National Climate Change and Wildlife Service Center within the U.S. Geological Survey, as well as a National Fish and Wildlife Habitat and Corridors Information Program.***

Monies in the Adaptation Fund are allocated to specific state agencies and programs that focus on natural resources, with a focus on land use and flood prevention, among other things. A minimum amount of funding—equal to the expected value of the allowances allocated for natural resources adaption [as specified in new CAA section 782(m)]—is guaranteed via appropriations to the Fund, but proceeds from the sale of allocated allowances are to be deposited in the Fund and used to offset appropriated amounts.

Part 2 – International Climate Change Adaptation Program

The Secretary of State, working with other agencies, is directed to create an International Climate Change Adaptation Program to provide new and additional financial resources to developing countries to meet the costs of adaptation. Allowances are allocated to fund the Program under new CAA section 782(n). Allowances allocated range from 1 percent to 4 percent between 2012 and 2050, with assistance increasing over time. Between 40 percent and 60 percent of the allowances may be given to appropriate international institutions or multilateral funds, if they exist, for disbursement to countries vulnerable to climate change.

Other allowances are to be used for bilateral assistance. U.S. AID is required to develop a list of the most vulnerable developing countries and to concentrate assistance on these countries. No one country may receive more than 10 percent of the funds available in a given year in bilateral assistance. This limitation does not apply to international institutions or multilateral funds. Assistance is to be prioritized by need and should foster local community engagement.

Subtitle F – Deficit Neutral Budgetary Treatment

Three funds created by the Act—the Energy Efficiency and Renewable Energy Worker Training Fund (section 422), the Climate Change Health Protection and Promotion Fund (section 467), and the Natural Resources Climate Change Adaptation Fund (section 480)—are to be treated as separate accounts in the Treasury and referred to as “the Funds.” Revenues deposited in the Funds are to be used only as specified in this Act and are not available for any other purpose. The revenues deposited in the Funds are deemed to be budget neutral in that appropriations from the Funds cannot exceed the amounts deposited into them annually.

TITLE V – AGRICULTURAL AND FORESTRY RELATED OFFSETS

*Subtitle A – Offset Credit Program From Domestic Agricultural and Forestry Sources
(Except where noted, USDA implements title V.)*

Section 501. Definitions

This section specifies that the “offset project developer” is the offset producer or designee, is responsible for establishment and maintenance of the offset, and per section 508 is the owner of offset credits. The agriculture and forestry sectors are not capped sectors for GHG emissions.

Section 502. Establishment of Offset Credit Program

This section requires USDA to establish a program within 1 year of enactment for domestic agriculture and forestry offsets that applies much of the same criteria as the EPA offsets program. The Secretary will produce methodologies for different practices. The methodologies will address baselines, additionality, accounting, leakage, reversals, verification, technical assistance, approval, certification, reporting, and audits.

Section 503. List of Practice Types

USDA will publish in the Federal Register within 1 year of enactment an initial list of practice types (e.g., agricultural tillage, reforestation, forest management, avoided deforestation) that reduce or sequester GHGs. The process for revising the list also is described.

Section 504. Requirements for Practices

The USDA Secretary shall identify methodologies to be used to compute offsets that will address activity baselines, additionality, quantification (monitoring, accounting), leakage (including accounting and mitigation), reversals, crediting periods, and environmental integrity. Projects cannot have commenced prior to January 1, 2009, unless they are registered before enactment under programs recognized by new CAA section 740, in which case they must have commenced after January 1, 2001.

Regarding reversals, each listed practice type will have requirements to report and compensate for reversals. USDA shall prescribe mechanisms to mitigate reversals that shall include one or more of these: offset reserve, insurance, or other mechanisms determined necessary by USDA. Under an offset reserve program, USDA will subtract and reserve a quantity of offset credits based on the risk of reversal, which

will be used in the case of reversals. If a reversal occurs, the project developer will replace the reserve credits if the reversal was intentional, or replace half the reserve credits if the reversal was unintentional.

This section defines “term offset credits,” which are credits with a crediting period of no more than 5 years. Crediting periods for agricultural projects are up to 5 years and for forestry projects are up to 20 years. Projects can be reenrolled.

Section 505. Project Plan Submissions and Approval

An offset project developer must submit a plan, and USDA must approve or deny the plan within 90 days, with an appeal process described. Plans are not required to be resubmitted during the crediting period.

Section 506. Verification

The Secretary shall establish requirements for verification by third-party, accredited verifiers. USDA shall establish accreditation procedures. A database of verifiers shall be maintained and updated.

Section 507. Certification of Offset Credits

USDA will address verification reports within 90 days. Offset credits are to be issued no later than 14 days after a determination, each with a unique serial number.

Section 508. Ownership and Transfer

The project developer is the owner of offset credits, and credits are transferrable.

Section 509. Program Review and Revision

USDA must review the program at least every 5 years, considering Advisory Committee recommendations (see subtitle B), the practice type list, methodologies, etc.

Section 510. Environmental Considerations

For each listed forestry practice type, methodologies should incent native species and biological diversity, while prohibiting noxious weeds and invasive plants.

Section 511. Audits

USDA shall conduct annual, random audits of projects, credits and verifiers.

Subtitle B – Emission Reduction and Sequestration Advisory Committee

USDA shall establish a nine-member Committee to provide scientific and technical advice related to establishing, implementing, and ensuring environmental integrity of domestic agricultural and forestry offsets programs. The Committee will provide a review no later than January 1, 2017, and at 5-year intervals afterward. It will meet at least quarterly and consult with the Offsets Integrity Advisory Board (see new CAA section 731).

Subtitle C – Miscellaneous

Section 551. International Indirect Land Use Changes

This provision limits EPA’s review of indirect ethanol impacts on GHG emissions. The EPA Administrator will exclude emissions from indirect land use change outside the country of origin for renewable fuel feedstocks from the consideration of life-cycle GHG emissions. NAS, convened by EPA and USDA, will issue a report on indirect GHG emissions related to transportation fuels, to be completed within 3 years. EPA and USDA will, after notice and comment, determine within 4 years whether models and methodologies exist to project indirect land use changes related to production of renewable fuels outside the country in which the feedstock is grown, and the GHG emissions consequences of such. If models and

methodologies are found to exist, then EPA and USDA will establish a methodology through a notice-and-comment rulemaking, which will be effective within 6 years and which will remove the exclusion of the first sentence at the beginning of this paragraph.

Section 553. Modification of Definition of Renewable Biomass

After an NAS study arranged by EPA, USDA, and FERC of “how sources of renewable biomass contribute to the goals of increasing America’s energy independence, protecting the environment, and reducing global warming pollution,” the definition of “renewable biomass” can be revised in the CAA and in the CERES for non-federal lands. A similar effort for federal lands would be undertaken.