

**SECTION-BY-SECTION
“AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009” –
DISCUSSION DRAFT**

SEC. 1. -- SHORT TITLE

This section provides that the bill be entitled the “American Clean Energy and Security Act of 2009.”¹

TITLE I – CLEAN ENERGY

Title I would establish a renewable electricity standard, a low carbon transportation fuel standard, and efficiency standards for major sectors of the U.S. economy.

Subtitle A-Renewable Electricity Standard

Sec. 101 would require all retail electricity suppliers that annually sell 1,000,000 megawatt hours or more of electric energy to either purchase a percentage of their electricity from renewable energy sources (including wind, solar, geothermal, some biomass, landfill gas, incremental hydropower, and marine and hydrokinetic renewable energy), or make an “alternative compliance payment” to the Department of Energy (DOE). To implement the new program, DOE would issue “Federal renewable energy credits” to renewable electricity generators and suppliers would be required to submit back to DOE a quantity of credits equal to 25% of their base amount by 2025, as set forth below:²

Year	Required Annual Percentage
2012	6.0
2013	6.0
2014	8.5
2015	8.5
2016	11.0
2017	11.0
2018	14.0
2019	14.0
2020	17.5
2021	17.5
2022	21.0
2023	21.0
2024	23.0

¹ The Act would amend the Clean Air Act (CAA); Public Utility Regulatory Policies Act of 1978 (PURPA); Federal Power Act; Energy Policy and Conservation Act; the Energy Policy Act of 2005 (EPAct 2005); the Energy Independence and Security Act of 2007; and the Safe Water Drinking Act.

² Sec. 101(c) would authorize DOE to reduce these percentages by up to one fifth upon petition by a State governor under specified conditions.

In lieu of credits, suppliers could make “alternative compliance payments” in the amount of the lesser of (i) 200% of the average market value of a credit for the previous year; or (ii) \$50 per megawatt hour (equivalent to 5 cents per kilowatt hour). The alternative compliance payment income is given to the utilities which provided credits. Credits could be traded and banked for up to 3 years. FERC would oversee the markets for credits and any derivative instruments, and suppliers failing to comply would be subject to civil penalties. States could adopt more stringent standards. Nuclear energy would not be included and is not substantively addressed in the Act. If a retail electric supplier is in full compliance with the discussion draft’s separate energy efficiency resource standard for that year, the governor of their state may petition DOE to reduce the renewable requirement by up to one-fifth. This federal RES is in addition to, not in lieu of, any existing state renewable mandates.

Subtitle B—Carbon Capture and Sequestration

Secs. 111-113 would require the Environmental Protection Agency (EPA) to commission various studies and reports and issue regulations to facilitate commercial deployment of CCS technologies. DOE would also be required to issue a report on technical, siting, financing and regulatory barriers to construction and operation of pipelines for sequestration or enhanced hydrocarbon recovery.

Sec. 114 incorporates Rep. Boucher’s H.R. 1689, which would authorize formation of an industry “Carbon Storage Research Corporation” that would operate as an affiliate of the Electric Power Research Institute. The Corporation would be authorized to assess deliveries of fossil fuel-fired electricity to retail consumers in the amount of approximately \$1 billion annually for 10 years and to distribute those funds to support commercial-scale CCS projects.

Sec. 115 would require EPA to establish a program to distribute funds to support commercial deployment of CCS in electric generation and industrial operations.

Sec. 116 would establish new standards for plants permitted after January 1, 2009 (which could emit no more than 1100 pounds of carbon dioxide per megawatt-hour after CCS is determined to be commercially operating or 2025, whichever comes first), for plants permitted after January 1, 2015 (which could emit no more than 1100 pounds of carbon dioxide per megawatt-hour), and for plants permitted after January 1, 2020 (which could emit no more than 800 pounds or an amount set by the EPA).

Subtitle C—Clean Transportation

Sec. 121 would require EPA to determine the lifecycle GHG emissions of all transportation fuels and determine a fuel emission baseline. Between 2014 and 2022 no fuel sold in the U.S. may exceed the fuel emission baseline. Also, under Sec. 121 EPA to

establish a “Low Carbon Fuel Standard” to take effect by 2023 to ensure transportation fuel providers reduce lifecycle GHG emissions. EPA would have discretion to waive the requirements upon a determination that implementation would “severely harm the economy or environment,” or that there is an inadequate domestic supply of fuels to meet requirements.

Sec. 122 would require electric utilities to develop a plan to support the use of plug-in hybrid and other types of electric vehicles. State regulatory authorities and non-regulated utilities would also be required to develop cost recovery plans, protocols and standards for integrating electric vehicles and Smart Grid systems and devices.

Sec. 123 would require DOE to establish a “Large-Scale Vehicle Electrification Program” to deploy and integrate plug-in hybrid vehicles in multiple regions. DOE would also be authorized to provide funding to support the purchase of new plug-in electric vehicles and supporting infrastructure.

Sec. 124 would authorize DOE to also provide assistance to automobile manufacturers to facilitate the manufacture of plug-in electric vehicles.

Subtitle D—State Energy and Environment Development Funds

Sec. 131 would require DOE to establish a program and develop model regulations for SEED Funds.

Subtitle E—Smart Grid Advancement

Sec. 142 would require DOE and EPA to analyze and incorporate Smart Grid technologies into the Energy Star program and to include Smart Grid capability information on Energy Star labels.

Sec. 143 would require FERC to develop and publish methodologies to enable States and load-serving entities (LSE) to publish peak demand reduction goals. LSEs would be required to set such goals for 2012, and further goals for 2015. States could adopt additional peak load management programs. These peak load measures are much broader than smart grid; it is also unclear which entities would have final say over the setting of goals.

Sec. 144 would require DOE to provide Smart Grid information to consumers.

Subtitle F—Transmission Planning

Sec. 151 would require FERC to adopt national grid planning principles to achieve national policy goals. Transmission planning entities would be required to submit plans to FERC which would review those plans, make recommendations, convene multi-regional meetings, and report to Congress on the regional grid planning process. The Act does not provide FERC any additional siting authority.

Subtitle G—Federal Purchases of Electricity

Sec. 161 would require DOE to publish a standardized agreement for Federal agencies to purchase renewable energy. Such contracts could be entered into for up to 30 years.

Technical Corrections to Energy Laws

Sec. 171 would provide corrections relating to energy efficiency standards for appliances and lighting. Specified DOE reporting requirements under EPAct 2005 would also be eliminated, including the requirement that DOE report annually on the benefits operating generation facilities to produce energy at the lowest cost to reliably serve consumers (a/k/a “economic dispatch”).

TITLE II – ENERGY EFFICIENCY

Title II would set new efficiency standards for buildings, lighting and appliances, transportation fuels, utilities, and industrial plants.

Subtitle A—Building Energy Efficiency Programs

Sec. 201 would require DOE to set new targets for national commercial and residential model and building energy codes, including initially 30% improvements relative to 2004 and 2006 editions of national model codes, and 50% improvements for editions of national codes to be released in or after 2016. DOE would also be required to set new targets at least every 3 years after 2016. States would be required to review and update their building codes and standards, and to certify for new and renovated buildings that they have achieved or made significant progress towards achieving compliance. No cost or feasibility study for the targeted reductions is mandated.

Sec. 202 would require DOE to establish a “Retrofit for Energy and Environmental Performance” (REEP) program to facilitate retrofitting of existing residential and commercial buildings. EPA would develop national retrofit standards for residential buildings and DOE would develop national retrofit standards for commercial buildings. DOE, in consultation with EPA and HUD, could distribute funds to offset retrofit costs.

Sec. 203 would authorize DOE to provide grants and rebates to States and low-income owners of pre-1976 manufactured homes to assist in purchasing replacement Energy Star qualified manufactured homes.

Sec. 204 would require EPA to establish a building energy performance labeling program to enable and encourage reduced energy consumption.

Subtitle B—Lighting and Appliance Energy Efficiency Programs

Sec. 211 would set new outdoor lighting energy efficiency standards to take effect in 2011, 2013 and 2015; portable lighting fixture standards to take effect in 2012; and art work light fixtures standards to take effect in 2012. EPA would also be required to set standards for incandescent lamp reflectors to take effect 3 years after enactment.

Sec. 212 would set new standby electric usage standards for water dispensers, hot food holding cabinets and portable electric spas (*i.e.* hot tubs) to take effect in 2012.

Sec. 213 would modify test procedures for appliance efficiency determinations for any product covered by DOE energy efficiency regulations (including clothes and dishwashers, showerheads, faucets, televisions and other products). DOE would be required to consider GHG emission reductions and Smart Grid technology.

Sec. 214 would require DOE to establish a “Best-in-Class Deployment Program” and would award retailers with bonuses for increased sales of high-efficiency installed building equipment, consumer electronics, and household appliances, and bounties for the replacement and recycling of older, inefficient appliances. Bonuses would also be available to manufacturers that develop “Superefficient Best-in-Class” products.

Subtitle C—Transportation Efficiency

Sec. 221 would require EPA to set new GHG emissions standards across the transportation sector, including new motor vehicle standards (that meet or exceed California law for vehicle emissions (AB 1493)) by 2010; new heavy-duty vehicles and engines standards by 2010; and new marine vessels, locomotives, aircraft and engines standards by 2012. EPA would have discretion to authorize and regulate averaging, banking and trading GHG emission credits across transportation categories.

Sec. 222 would require States to submit to EPA and the Department of Transportation (DOT) plans that set goals for 10- and 20-year periods and address strategies to reduce mobile source GHG emissions in metropolitan areas, and to update those plans every 4 years. Failure to comply could result in loss of highway funds.

Sec. 223 would require EPA to establish a “Smartway Transportation Efficiency Program” to quantify, demonstrate and promote, including through a financing program, the benefits of technologies, products, fuels and operational strategies that reduce petroleum consumption, air pollution and GHG emissions from the mobile source sector.

Subtitle D—Utilities Energy Efficiency

Sec. 231 mandates an Energy Efficiency Resource Standard that would require electric and natural gas distribution companies to achieve “cumulative energy savings” relative to “business-as-usual” projections beginning with 1% in 2012 and increasing to 15% by 2020 for electricity retailers, and .75% increasing to 10% for natural gas distributors. In 2014, DOE would be required to review and further increase the required savings if DOE deemed it achievable. After 2020, the standard would be at least 15% or “the highest

level of cost-effective energy efficiency potential that is reasonably achievable.” In lieu of cost savings, distributors could pay an “alternative compliance payment.” The companies are each required to report to DOE on their savings. Failure to achieve reductions would result in civil penalties of \$50 per megawatt hour of electricity savings or \$5 per million British thermal units of natural gas units that the distributor failed to make. Neither “cumulative energy savings” nor “business-as-usual” is defined in the bill.

Subtitle E—Industrial Efficiency Programs

Secs. 241 and 242 would require DOE to develop new industrial plant efficiency certification standards, and to provide monetary awards to owners and operators of new and existing electricity energy generation facilities or thermal energy production facilities using fossil or nuclear fuel to encourage the recovery of any thermal energy that is a byproduct of electric power generation.

Subtitle F—Improvements in Energy Savings Performance Contracting

Sec. 251 would establish competition requirements for federal agency “Energy Savings Performance Contracts,” and authorize such contracts to be used for renewable energy production, including solar, at federal facilities.

Subtitle G—Public Institutions

Sec. 261 would make not-for-profit hospital facilities eligible for grants for energy efficiency improvement and energy sustainability, and expand eligibility for institutions of higher education.

TITLE III--REDUCING GLOBAL WARMING POLLUTION

This title would set mandatory caps on U.S. GHG emissions and establish a cap and trade program.

Subtitle A—Reducing Global Warming Pollution.

Sec. 301 (Part A) would make findings that global warming poses a significant threat to the national security, economy, public health and welfare and environment of the U.S. and other nations, and would require EPA establish a “Global Warming Pollution Reduction Program.” This program would impose mandatory caps on U.S. GHG emissions and require reductions as follows:

3% below 2005 levels by 2012
20% below 2005 levels by 2020
42% below 2005 levels by 2030
83% below 2005 levels by 2050

“Covered entities” (defined in Sec. 312, pp. 463-466) would include the following:

- i) any electricity source;
- ii) any stationary source that produces or imports petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid, the combustion of which produces more than 25,000 tons annually of carbon dioxide equivalent;
- iii) any stationary source that produces more than 25,000 tons annually of carbon dioxide equivalent of six specified gases;³
- iv) any geologic sequestration site;
- v) any stationary source in specified industrial sectors;⁴
- vi) stationary sources in the chemical or petrochemical sector;⁵
- vii) stationary sources engaged in ethanol production, ferroalloy production, food processing, glass production, hydrogen production, iron and steel production, lead production, pulp and paper manufacturing and zinc production that emit more than 25,000 tons annually of carbon dioxide equivalent;
- viii) any fossil fuel-fired combustion device (such as a boiler) that emits more than 25,000 tons of carbon dioxide equivalent annually; and
- ix) any local distribution company that delivers 460,000,000 cubic feet or more annually of natural gas to customers that are not covered entities.

Sec. 301 (Part A) would also require EPA to set aside allowances that would be transferred to developing countries to reduce deforestation. EPA would also be required to contract with the National Academy of Sciences (NAS) for preparation of a comprehensive report and recommendations on global climate change by 2012, and every 4 years thereafter. EPA would be required to take the appropriate actions identified by NAS in those reports.

Sec. 301 (Part B) would require EPA to establish a Federal GHG registry for covered entities and vehicle fleets emitting more than more than 25,000 tons of carbon dioxide equivalent annually. In addition to the “covered entities” listed above, entities emitting more than 10,000 tons of carbon dioxide equivalent, and any other entities EPA designates, would be required to report. Seven GHGs⁶ initially would be listed and any person could petition to add gases to the listing.

³ Fossil fuel-based carbon dioxide; nitrous oxide; perfluorocarbons; sulfur hexafluoride; nitrogen trifluoride; any other fluorinated gas that is a GHG as designated by EPA; or any combination.

⁴ These would include adipic acid production; primary aluminum production; ammonia manufacturing; cement production, excluding grinding-only operations; hydrochlorofluorocarbon production; lime manufacturing; nitric acid production; petroleum refining; phosphoric acid production; silicon carbide production; soda ash production; titanium dioxide production; and coal-based liquid or gaseous fuel production.

⁵ These include sources that manufacture acrylonitrile, carbon black, ethylene, ethylene dichloride, ethylene oxide, or methanol; or a chemical or petrochemical product that results in annual process emissions of 25,000 or more tons of carbon dioxide equivalent.

⁶ Carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons emitted as a byproduct, a perfluorocarbon, and nitrogen trifluoride.

Sec. 301 (Part C) would establish a complex cap-and-trade program to be developed and administrated by EPA. Under the program, EPA would for each year beginning in 2012 issue: (i) emission allowances; (ii) compensatory allowances; (iii) strategic reserve allowances; and (iv) offset credits. Covered entities would be required to hold 1 allowance for each ton of carbon dioxide equivalent emitted directly or indirectly in the prior year, or alternatively satisfy their obligations through offset credits and international emission allowances from reduced deforestation. An offset credit is worth 4/5 of a standard emissions credit. Covered entities can meet some of their allowance obligation by purchasing offsets – 30% of their obligation in 2012 ramping up to 66% in 2050. No more than ½ of the offsets can be international. Failure to comply with requirements would subject owners or operators of covered entities to civil penalties. Allowances could be traded, banked or borrowed subject to specified restrictions, and EPA would hold quarterly auctions of “strategic reserve allowances” (1-3% of the pool), the proceeds of which would support international deforestation efforts.

Sec. 301 (Part D) would establish an independent “Offsets Integrity Advisory Board” and require EPA to establish an “Offsets Program” and registry to track approved projects and the offset credits generated by such projects. EPA would establish a list of approved projects that would reduce or avoid GHG emissions or sequestration of GHGs, and any person could petition to add or remove projects from the list.

Sec. 301 (Part E) would authorize EPA to use emission allowances for an “International Deforestation Reduction Program.”

Sec. 301 (Part F) would authorize FERC to oversee the carbon allowance market, and to assess fines of \$1 million or triple the monetary gain of each violation. The President is directed to delegate authority over the derivatives market to appropriate agencies. Market manipulation, fraud and false or misleading statements would be punishable by a fine of not more than \$25 million (or \$5 million for an individual), or imprisonment, or both.

Subtitle B—Disposition of Allowances.

Sec. 321 (Part H) [*COMMITTEE TO SUPPLY KEY ALLOCATION AND FUNDING INFORMATION.*] The section would establish the procedures for auction allowances, if ultimately authorized by EPA. Requirements would include quarterly auctions beginning in 2011; a single-round, sealed-bid, uniform price format; opening the auction to any person subject to financial assurance requirements; disclosure of beneficial ownership of any bid; purchase limit of 5% of the allowances offered at that quarterly auction; and publication of winners of the auction. EPA would be required to issue regulations allowing persons holding specified “state allowances” issued prior to 2012 to exchange them for allowances issued under the federal program.

Subtitle C-Additional GHG Emission Standards.

Sec. 331 would require EPA to set additional emission standards within 1 year for stationary sources that have uncapped GHG emissions greater than 10,000 tons of carbon dioxide equivalent and in the aggregate are responsible for emitting at least 20% of uncapped GHG emissions. (Each source category that is responsible for 10% or more of uncapped methane emissions would be included.) The additional standards would be phased in over 3 to 10 years. Methane emissions from sheep and cattle are exempt.

Sec. 332 would establish a separate regulatory program for hydrofluorocarbons (HFC) not produced as a byproduct. The production and consumption of HFCs would be phased out 3% per year from 2012-2038.

Sec. 333 would require EPA to reduce emissions of black carbon (or soot). EPA would be required to establish new regulations and to study international mitigation opportunities for black carbon.

Secs. 334 and 335 would allow States to adopt and enforce their own additional GHG emissions standards unless such GHG were covered under an applicable implementation plan or was regulated under the CAA sections applicable to new stationary sources or hazardous air pollutants. States standards, however, would be suspended until 2018.

Sec. 336 would authorize any person who has suffered or reasonably expects to suffer harm from a violation of the Act to bring a citizen suit. “Harm” would be broadly defined to include “any effect of air pollution (including climate change), currently occurring or at risk of occurring” even if it is widely shared. A lawsuit could be based on any act or omission that violates the Act or slows the pace of its implementation, or results in higher GHG emissions. Multiple lawsuits could be consolidated before a multidistrict panel and successful plaintiffs could recover damages, costs, reasonable attorneys fees and expert fees. Where a federal agency was found to have violated a mandatory duty, courts could award payments for “beneficial mitigation projects” or to compensate plaintiffs for any impact from global warming suffered by plaintiffs, as well as other remedies.

TITLE IV—TRANSITIONING TO A CLEAN ECONOMY

Title IV would seek to level the playing field for U.S. companies where U.S. compliance costs may cause “leakage” of jobs to other countries.

Subtitle A—Ensuring Domestic Competitiveness

Sec. 401 would seek to prevent “leakage,” which is defined to occur when increased production costs in the U.S. causes production to go to other countries. Owners and operators of facilities in eligible U.S. industrial sectors using large amounts of energy to produce globally traded commodities could receive relief in the form of rebates, or if these were ineffective, additional costs (in the form of international allowances) imposed on imports.

Secs. 403-407 would require EPA to determine eligibility for rebates by 2011, and to publish lists for eligible sectors, including iron and steel, and the amount of rebates to be provided for the next calendar year. The amount of the rebates would be determined pursuant to a complex calculation. Rebates would be phased out after 2020 if EPA determines that more than 70% of the global output from the sector occurs in countries with commensurate GHG regulations.

Secs. 411-416 provide for an “International Reserve Allowance Program” to prevent foreign GHG emissions from undermining U.S. global climate change goals. The President would report to Congress by 2017 and if he determines compliance costs even with rebates have caused a significant reduction in domestic jobs or production, or an increase in foreign GHG emissions, EPA could issue international reserve allowances that importers would be required to submit when importing covered goods (except from the least developed of developing countries or countries responsible for less than .5% of total global GHG emissions).

Subtitle B—Green Jobs and Worker Transition

Secs. 421 and 442 would authorize the Secretary of Education to award grants to develop programs of study focused on careers and jobs in renewable energy, energy efficiency, and climate change mitigation, and the Secretary of Labor to carry out workforce training and education in those areas

Sec. 424. *[COMMITTEE TO SUPPLY WORKER TRANSITION SECTION.]*

Subtitle C—Consumer Assistance.

Sec. 431. *[COMMITTEE TO SUPPLY CONSUMER ASSISTANCE SECTION.]*

Subtitle D—Exporting Green Technology.

Secs. 451-455 would establish an “International Green Technology Fund” to provide financial assistance to developing countries for projects that deploy technologies that reduce GHG emissions. It would be located administered by State, EPA and DOE.

Subtitle E—Adapting to Climate Change

Part 1-Domestic Adaptation: Subpart A--National Climate Change Adaptation Program

Secs. 461-467 would establish a “National Climate Change Adaptation Council” of 14 or more federal agencies to coordinate federal agency policies relating to adapting to climate change. The National Oceanic and Atmospheric Administration (NOAA) would issue national assessments every 4 years to evaluate vulnerability to climate change, and

agencies would be required to prepare plans in response to each assessment. NOAA would also establish a “National Climate Change Service” to serve as a clearinghouse to provide information, and a “Climate Change Adaptation Fund” to assist adaptation projects.

Part 1-Domestic Adaptation: Subpart B—Public Health and Climate Change

Secs. 471-473 would require the Department of Health and Human Services to promulgate a national strategy for mitigating public health impacts of climate in the U.S.

Part 1-Domestic Adaptation: Subpart C—Natural Resource Adaptation

Secs. 481-486 would require the President to establish a “Natural Resources Climate Change Adaptation Panel” to develop and implement a strategy for “assisting natural resources in becoming more resilient and adapting to the impacts of climate change and ocean acidification.” Agencies would be required to integrate that strategy into agency planning and management of natural resources.

Sec. 487 would require NOAA to establish a “Natural Resources Climate Change Adaptation Science and Information Program” to be implemented through the U.S. Geological Survey and counterpart NOAA programs. These entities would be required to conduct surveys and provide technical assistance. A Science Advisory Board and a “Natural Resources Climate Change Adaption Fund” would also be created.

Part 2—International Climate Change Adaptation Program

Secs. 491-496 would require State and EPA to establish an “International Climate Change Adaptation Program” within USAID to provide assistance to developing countries.