

Summary Paper | Federal and Regional Climate Change Policy and Legislation in the United States

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United States

Federal Level

Past Policy

Energy Policy Act: 2005

Signed into law August 8th 2005 by President George W. Bush, the act was established “[t]o ensure jobs for our future with secure, affordable, and reliable energy”¹, and was the first omnibus energy legislation enacted in over a decade in the United States.

Growing national concerns regarding energy security and economic growth helped to shape the bill, whose major provisions included²:

- Tax incentives for domestic energy production and energy efficiency
 - o Reductions of USD\$14.5 billion provided over eleven years to encourage the above
 - o Improvement of energy efficiency through incentives for voluntary action and new statutory standards
- Mandate to double the use of biofuels nationally
- Renewable fuel initiatives
 - o Included a standard for gasoline sold in the United States requiring an increasing amount of renewable fuel composition (e.g. ethanol, biodiesel)
- Implementation of a number of federal energy research and development programs

Several intensely debated proposals of the original bill were not included in the enacted legislation, due primarily to competing concerns between environmental and economic priorities. These included³:

- Authorization of drilling for oil and gas in the Arctic National Wildlife Refuge (ANWR)
- Increased vehicle efficiency standards, and in particular increased corporate average fuel economy (CAFE)

¹ http://www.epa.gov/oust/fedlaws/publ_109-058.pdf

² http://www.epa.gov/oust/fedlaws/publ_109-058.pdf

³ <http://ncseonline.org/NLE/CRSreports/06Apr/RL33302.pdf>

Climate Stewardship Act: 2003, Climate Stewardship and Innovation Act: 2005, and Climate Stewardship and Innovation Act: 2007

Introduced into the US Senate by Senators John McCain and Joseph Lieberman, the Climate Stewardship Acts were a trio of acts aimed at the implementation of a national mandatory cap and trade system for greenhouse gas emissions. Each act was subsequently defeated in the US Senate⁴.

The first act, introduced in 2003, covered approximately 85% of US emissions, exempting, among other sectors, the agricultural and residential areas. The act proposed a cap on CO₂ emissions in 2010 at the 2000 level⁵. The second act, modified slightly and introduced in 2005, focused more heavily on the leadership role of the federal government in the research and development of low-carbon technologies. The last of the three acts, re-introduced to the Senate in 2007, proposed similar provisions to the first two acts⁶, and was similarly defeated.

Energy Independence and Security Act: 2007

Originally named the Clean Energy Act of 2007, this omnibus energy policy was signed into law by President George W. Bush on December 19th 2007. The stated purpose of the act is to “move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes”⁷.

The Energy Independence and Security Act introduced a number of provisions aimed at increased energy efficiency and renewable energy, and focused specifically on automotive fuel economy, the development of biofuels, and energy efficiency standards. Key provisions included⁸:

- Corporate Average Fuel Economy (CAFE) Standards
 - o Target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020
 - o Establishment of a fuel economy program for medium and heavy duty trucks
- Renewable Fuels Standard (RFS)
 - o Modified standard; initiation at 9 billion gallons of renewable fuel production in 2008 and increase to 36 billion gallons production by 2022
- Appliance and Lighting Efficiency Standards
 - o Set new energy efficiency standards for lighting and for residential and commercial appliances, particularly for refrigeration equipment

Several particularly controversial provisions of the Energy Independence and Security Act were not included in the enacted legislation⁹:

- The Renewable Energy Portfolio Standard (RPS)
 - o Established a minimum amount of electricity required from renewable energy resources for retail electricity suppliers
- Energy Tax Subsidies

⁴ <http://www.nrdc.org/globalwarming/csa/csafact.asp>

⁵ http://www.pewclimate.org/policy_center/analyses/s_139_summary.cfm

⁶ <http://thomas.loc.gov/cgi-bin/query/z?c110:S.280>:

⁷ http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6enr.txt.pdf

⁸ http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6enr.txt.pdf

⁹ http://energy.senate.gov/public/_files/RL342941.pdf

Future Policy

American Clean Energy and Security Act (ACES)

More commonly known as the Waxman-Markey Bill, the act was approved by the House of Representatives on June 26, 2009 by a vote of 219 to 212. This legislation, directed towards national climate and energy policy, would establish a national cap and trade system for greenhouse gas emissions, and contains five key titles¹⁰:

1. Clean Energy
 - Federal renewable electricity and efficiency standard
 - Carbon capture and storage technology
 - Performance standards for newly built coal-fuelled power plants
 - Research and development towards electric vehicles
 - Support for the design and deployment of smart grid technology
2. Energy Efficiency
 - Buildings
 - Lighting
 - Appliances
 - Vehicles and Transportation
 - Industrial
3. Reducing Global Warming Pollution
4. Transitioning to a Clean Energy Economy
 - Preservation of domestic competitiveness
 - Consumer assistance
 - Support for domestic and international adaptation initiatives
5. Agriculture and Forestry Related Offsets

The bill establishes emission reductions targets, enforced through the implementation of emission caps, for seven GHGs: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). The ACES sets both a mandatory cap on GHGs as well as a non-binding economy-wide GHG reduction goal. For all covered entities, the emission reduction cap targets are:

- 2012: 3% below 2005 levels (~12% above 1990 levels)
- 2020: 17% below 2005 levels (~7% below 1990 levels)
- 2030: 42% below 2005 levels (~33% below 1990 levels)
- 2050: 83% below 2005 levels (~80% below 1990 levels)

The economy-wide national goals for all sources are the same as those targets presented above, excepting the 2020 target, which is 20% as opposed to 17% below 2005 levels (equivalent to ~4% below 1990 levels)¹¹.

Though several initiatives regarding the implementation of region-specific cap and trade systems are currently underway in the United States (see section below on Regional Level), the bill requires that state trading programs are put on hold from 2012 to 2017 to allow for the initiation of the federal cap and trade system. Aside from this exception, states are capable of enacting further climate regulations in regards to other areas of climate change policy under the bill.

¹⁰ <http://www.pewclimate.org/docUploads/Waxman-Markey-short-summary-revised-June26.pdf>

¹¹ http://pdf.wri.org/wri_summary_of_aces_0731.pdf

American Clean Energy Leadership Act (ACELA)

The American Clean Energy Leadership Act of 2009 is, among other things, “a bipartisan effort to position the US to lead the development of clean energy by ensuring that commercial financing for clean, new technologies is readily available for future energy use”¹² in the United States. The act was passed as an energy bill on June 17, 2009, and includes six major bills with bipartisan sponsorship.

The main goals of the act are to¹³:

- Accelerate the introduction of new clean energy technologies in the US
- Increase energy efficiency in buildings, equipment, and appliances
- Enhance America’s energy independence and improve national energy security
- Double research and development related to energy and technology
- Increase responsible production of traditional energy sources
- Increase the transparency of energy markets

Clean Energy Jobs and American Power Act (CEJAPA)

Senator Boxer, the Chair of the Senate Committee on Environment and Public Works, introduced the Chairman’s Mark of the act on October 23, 2009. The goal of the bill, also known as the “Kerry-Boxer Bill”, is to “create clean energy jobs, promote energy independence, reduce global warming pollution, and transition to a clean energy economy”¹⁴.

The CEJAPA consists of two divisions¹⁵:

1. Division A: Authorizes new GHG emissions standards, creates new programs for energy, research and development, adaptation, transition assistance and other purposes
2. Division B: Authorizes the establishment of GHG emission caps

The CEJAPA is similar to the ACES Act, but does differ in several important ways, including a difference in 2020 reduction targets (20% by 2020 compared to 17% by 2020, for the CEJAPA and ACES Acts, respectively) and the pre-emption of EPA regulatory authority. Additionally, the wider scope of the two bills differs significantly; while the ACES Act is a comprehensive climate and clean energy bill, the Kerry-Boxer bill focuses primarily on GHG reductions within the USA¹⁶.

Clean Energy Act of 2009

Introduced November 16, 2009, the Clean Energy Act focuses specifically on the nuclear energy sector of the US. It presents findings regarding the status and characteristics of nuclear energy in America, and concludes that expansion of such efforts would result in GHG reductions nationally.

The act advises definitional amendments to the Energy Policy Act of 2005, specifically to the Loan Guarantee Program Authority, and also proposes several expansions to the existing Nuclear Power 2010 Program, and argues for the development of a federal nuclear waste policy. Finally, the Act sets out funding requirements for nuclear workforce development, research, and education, including the authorization of USD\$100 million annually from fiscal year 2011 to fiscal year 2020 to fund

¹² http://energy.senate.gov/public/_files/FULLSUMMARYACELEnergyBill20090.pdf

¹³ <http://www.pewclimate.org/docUploads/acela-summary-aces-act-comparison-oct2009.pdf>

¹⁴ <http://www.pewclimate.org/short-summary/clean-energy-jobs-american-power-act-chairmans-mark>

¹⁵ http://pdf.wri.org/wri_summary_cejapa_2009-10-30.pdf

¹⁶ <http://kerry.senate.gov/cleanenergyjobsandamericanpower/pdf/SectionbySectionSummary.pdf>

grants and develop educational programs at secondary schools and postsecondary institutions specific to nuclear energy¹⁷.

Regional Level

Western Climate Initiative (WCI)

Formed in February 2007, the Western Climate Initiative (WCI) is a “collaboration of independent jurisdictions working together to identify, evaluate, and implement policies to tackle climate change at a regional level”¹⁸. The WCI operates independently from national governments, and its partner members consist of the US states of Arizona, California, Montana, New Mexico, Oregon, Utah, and Washington, and the Canadian provinces of British Columbia, Manitoba, Ontario, and Quebec. There are also a number of observers to the WCI, including Alaska, Colorado, Idaho, Kansas, Nevada, Wyoming, Canadian province Saskatchewan, and the Mexican states of Baja California, Chihuahua, Coahuila, Nuevo Leon, Sonora, and Tamaulipas¹⁹.

The WCI requires its partner members to create detailed climate action plans and develop regional strategies to address climate change. Though it has a number of focuses, the main goals of the WCI are to²⁰:

- Set regional emissions reductions goals
- Develop a regional registry to track and manage emission reductions and offset credits
- Design and implement a multi-jurisdictional market-based cap and trade system

The proposed WCI cap and trade program is hoped to reduce GHGs, promote growth in green technologies, and contribute to the development of a clean energy economy. The WCI is currently aiming to reduce GHG emissions to 15% below 2005 levels by 2020, a goal established in August of 2007, and the cap and trade system is an important component of this effort²¹.

WCI Cap and Trade Program

The Design Recommendations for the WCI Regional Cap and Trade program were released on September 23, 2008, following an extensive 18-month review process. The following were proposed in regards to the scope, implementation, and future of the system:

- The six major greenhouse gases would be covered: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆)
- Emissions from the following sectors of the economy would be covered: electricity generation (includes imported electricity), industrial and commercial fossil fuel combustion, industrial process emissions, gas and diesel consumption for transportation, and residential fuel use
- Only entities with annual emissions >25,000 metric tonnes of CO₂e will be covered by WCI
- The system would follow a phased introduction:

¹⁷ <http://www.pewclimate.org/docUploads/alexander-webb-summary-12-11-09.pdf>

¹⁸ <http://www.westernclimateinitiative.org/>

¹⁹ <http://www.westernclimateinitiative.org/wci-partners-and-observers-map>

²⁰ http://www.mcmillan.ca/Upload/Publication/WesternClimateInitiative_0808.pdf

²¹ <http://www.westernclimateinitiative.org/the-wci-cap-and-trade-program>

- Phase One: Initiated January 1, 2012 and covers emissions from electricity, industrial combustion at large sources, and industrial process emissions
- Phase Two: Initiated in 2015 and expands to include transportation and residential, commercial, and industrial fuels

The initial regional cap will be set at the best estimate of expected emissions from those sources covered at the onset of the program, and will be reduced annually until 2020 to achieve the targeted 15% reduction²².

On February 19, 2009, the WCI Working Committee released the 2009 – 2010 Work Plan, describing the steps to taken in the next 12 to 18 months in regards to the implementation of the cap and trade system. By 2011, each WCI partner is required to begin reporting GHG emissions, starting with the 2010 year²³. Finally, the WCI cap and trade program is being designed for maximum compatibility with potential future national and international standards, and will certainly be affected under the provisions of the American Clean Energy and Security Act, wherein no regional or state level cap and trade programs will be allowed to operate between 2012 and 2017 following the implementation of a federal level cap and trade program.

For more information:

- Western Climate Initiative website: <http://www.westernclimateinitiative.org/>
- Pew Centre on Global Climate Change – WCI: <http://www.pewclimate.org/WesternClimateInitiative>

Regional Greenhouse Gas Initiative (RGGI; ReGGie)

The Regional Greenhouse Gas Initiative is a regional cooperative established in 2003 by states and provinces in the Northeastern United States and Canada to reduce GHG emissions. Current member are the US states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont, and the Canadian provinces of Newfoundland and Labrador and Prince Edward Island. Observers include Pennsylvania, the District of Columbia, Quebec, New Brunswick, Nova Scotia, and Ontario.

RGGI Cap and Trade System

RGGI has created the first mandatory, market-based CO₂ emissions reduction program in the United States to reduce GHG emissions. To date, the above-listed members have capped CO₂ emissions from the power sector, and will reduce these emissions 10% by 2018²⁴.

The specifics of the RGGI cap and trade program are outlined below.

- Establishment of a multi-state CO₂ emissions cap that will gradually decrease to 90% of original cap
- Requirement of electric power generators to hold allowances equal to their CO₂ emissions over a three year control period
- Provision of a market-based emissions auction and trading system where electric power generators can buy, sell, and trade CO₂ emissions allowances

²² http://www.env-ne.org/public/resources/pdf/ENE_WCI__Summary.pdf

²³ <http://www.westernclimateinitiative.org/the-wci-cap-and-trade-program/faq>

²⁴ http://rggi.org/docs/program_summary_10_07.pdf

- Support of low-carbon intensity solutions, including energy efficiency and renewable energy, using the proceeds of allowance auctions
- Offsetting to help companies meet compliance obligations

The RGGI cap and trade program was made effective January 1, 2009, following initial auctions held in September and December of 2008. The regional CO2 cap was set at 188 million tons for the ten member states, and those entities covered by the program are all fossil-fuel fired electric power plants 25 MW or greater in size, translating into approximately 225 facilities region-wide.²⁵

The RGGI cap and trade program was initiated January 1, 2009, and the first phase, from 2009 to 2014, will aim to stabilize GHG emissions. The subsequent phase, from 2015 to 2018, aims to reduce emissions by 2.5% each year, culminating in reductions of 10%²⁶.

For more information:

- Regional Greenhouse Gas Initiative website: <http://www.rggi.org/home>
- Regional Greenhouse Gas Initiative Executive Summary: http://www.rggi.org/docs/RGGI_Executive%20Summary_4.22.09.pdf
- Pew Centre on Global Climate Change – RGGI: http://www.pewclimate.org/what_s_being_done/in_the_states/rggi

Midwestern Greenhouse Gas Reduction Accord (MGGRA)

The MGGRA is a commitment made by Midwestern states and provinces to reduce GHG emissions through a regional cap and trade program and other related policy measures. Signatories to the Accord, which was signed on November 15, 2007 at the Midwestern Governors Association Energy Security and Climate Change Summit, are the six US states of Illinois, Iowa, Kansas, Michigan, Minnesota, and Wisconsin, and the Canadian province of Manitoba²⁷.

The Accord commits signatory members to establish a GHG reduction program, specifically²⁸:

- Setting of regional GHG emission reduction targets
- Development of a multi-sector cap and trade system and complementary policies
- Development and participation in a formal GHG emissions registry for crediting and compliance tracking
- Enabling of complementary action and integration with similar programs in other regions
- Reduction of emissions leakages to non-participating states
- Maximizing of employment and economic benefits

In January 2009, draft recommendations on the design of the MGGRA cap and trade program were released.

For more information:

- Midwestern Greenhouse Gas Reduction Accord website: <http://www.midwesternaccord.org/index.html>
- Pew Centre on Global Climate Change – MGGRA: http://www.pewclimate.org/what_s_being_done/in_the_states/mggra

²⁵ http://www.rggi.org/docs/RGGI_Executive%20Summary_4.22.09.pdf

²⁶ http://www.rggi.org/docs/RGGI_Executive%20Summary_4.22.09.pdf

²⁷ <http://www.midwesternaccord.org/index.html>

²⁸ http://www.pewclimate.org/what_s_being_done/in_the_states/mggra