

Global Warming Cap-and-Trade Legislation in the 110th Congress (As of June 2008)

Bill	Covered Gases	Sectors Covered	Near-Term Cap	Long-Term Cap	Allocation System	Cost Containment	Offsets	Periodic Review of Cap
<b>Lieberman-Warner-Boxer</b> (S. 2191/S. 4825)  <i>Climate Security Act</i>	All 6 GHGs  86-87% of U.S. emissions covered <sup>1</sup>	Electric utilities  Industries  Natural gas, petroleum and coal-based fuel importers and refiners  Declining cap on consumption and importation of hydrofluorocarbons (HFCs)	2005 levels by 2012  19% below 2005 levels by 2020	71% below 2005 levels by 2050  (~ 62-66% below 2005 total economy-wide levels <sup>2</sup> )	Auction + free distribution.  23% of allowances auctioned in 2012, rising to 57% by 2050.  Some sector allocations specified.	Up to 15% of allowance requirements can be borrowed. Banking is also allowed.  Creates Carbon Market Efficiency Board to monitor the trading market and implement specific cost relief measures, including enhanced borrowing and greater use of international allowances.	Up to 30% of allowance requirements may be met by domestic (15%) and international (15%) projects. International offsets can be project-specific (5%) or from reducing deforestation (10%).	3-year NAS review of U.S. and global progress to stabilize climate, and technological developments.  3-year EPA legislative recommendations based on NAS review.  2020: Presidential legislative recommendations based on Interagency Climate Change Task Force consensus report.
<b>Bingaman-Specter</b> (S. 1766)  <i>Low Carbon Economy Act</i>	All 6 GHGs  86% of U.S. emissions covered	Electric utilities  Industries  Petroleum importers and refiners, natural gas processors, pipelines	2006 levels by 2020	1990 levels by 2030 (~ 11% above to 20% below total 2005 economy-wide levels because of safety valve)  President may set higher long-term targets (up to 60% below 2006 levels)	Auction + free distribution.  24% of allowances auctioned till 2017, rising to 53% in 2030.  Some sector allocations specified.	\$12/ton carbon price cap, or “safety valve,” at which point unlimited allowances may enter market. Price increases by 5%/year above inflation.  Allowances can be banked.	Allowed for sequestration and industrial projects.	5-year interagency review of: actions by five largest trading partners; impacts on electricity imports; NAS findings on science and technology; and impacts on energy security. May include review of allocation system.  2014: interagency annual review of comparable actions by other countries, making any recommendations regarding foreign offsets.
<b>Sanders-Boxer</b> (S. 309)  <i>Global Warming Pollution Reduction Act</i>	All 6 GHGs  100% of U.S. emissions covered	Economy-wide	2%/year declining cap from 2010-2020  1990 levels by 2020	27% below 1990 levels by 2030  53% below 1990 levels by 2040  80% below 1990 levels by 2050	Details largely determined by EPA.	Cap freezes if price of technology options are too high.	Allowed for sequestration.	EPA may accelerate caps based on 3-year NAS reviews of climate events and technological feasibility.  2039: NAS to assess appropriateness of 2050 milestone.

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<b>Kerry-Snowe</b> (S. 485)  <i>Global Warming Reduction Act</i>	All 6 GHGs  100% of U.S. emissions covered	Economy-wide	1990 levels by 2020  2.5%/year reduction from 2020-2029	3.5%/year reduction from 2030-2050  62% below 1990 levels by 2050	Details to be determined by President and EPA.  Requires some auction.	Allowances can be banked.	Allowed for sequestration.	2-year NAS review of U.S. progress in avoiding dangerous climate change, with any recommendations for target alteration.
<b>Lieberman-McCain</b> (S. 280)  <i>Climate Stewardship and Innovation Act</i>	All 6 GHGs  74% of U.S. emissions covered	Electric utilities  Industries  Petroleum importers and refiners	2004 levels by 2012  1990 levels by 2020	20% below 1990 levels by 2030  60% below 1990 levels by 2050  (~ 50% below 2005 total economy-wide levels)	Details to be determined by EPA.	Up to 25% of allowance requirements can be borrowed. Banking is also allowed.	Up to 30% of allowance requirements may be met by domestic and international projects.	2-year Department of Commerce review of latest science and impacts to evaluate appropriateness of allowance quantities. Must include review of 2012 allowances.
<b>Markey</b> (H.R. 6186)  <i>Investing in Climate Action and Protection Act (iCAP)</i>	All 6 GHGs  87% of U.S. emissions covered by cap. Another 7% of emissions covered by mandatory performance standards and voluntary financial incentives. Total coverage = 94%.	Electric utilities  Industries  Petroleum importers and refiners  Producers or importers of HFCs and similar GHG chemicals  Natural gas distribution companies  Geological sequestration sites	2005 levels by 2012  20% below 2005 levels by 2020	85% below 2005 levels by 2050 (for covered sectors)	Mainly auction (94% in 2012, reaching 100% in 2020).  6% of allowances in 2012 freely allocated to energy-intensive industries vulnerable to international competition.	Up to 15% of allowance requirements can be borrowed. Banking is also allowed.  Federal Energy Regulatory Commission will oversee carbon market.	Up to 15% of allowance requirements can be met through domestic offsets. Another 15% can be met internationally from least-developed nations and countries with similar mandatory carbon constraints.	5-year NAS review of latest science and bill's performance in reducing emissions.  3-year GAO review of agencies' administration of funds created by bill.  5-year interagency recommendations to President, and from President to Congress based on NAS and GAO reviews.

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<b>Doggett</b> (H.R. 6316)  <i>Climate Market Auction Trust &amp; Trade Emissions Reduction System (MATTERS) Act</i>	All 6 GHGs  86% of U.S. emissions covered	Electric utilities  Industries  Natural gas processing plants and importers  Petroleum importers and refiners  Producers or importers of HFCs and similar GHG chemicals	2005 levels by 2012  39% below 2005 levels by 2030	80% below 1990 levels by 2050 (for covered sectors)	85% auction initially, with remaining 15% as free allocation to affected industries. Becomes 100% auction by 2020.	Creates Carbon Market Efficiency Board to monitor and report on the market, and to act through certain cost relief measures, including allowance borrowing and increasing the number of offsets allowable.	Up to 25% of allowance requirements may be met with offsets, with limitations: up to 15% from a comparable international cap and trade program; up to 15% from international forest activities; and/or up to 10% from domestic offsets.	3-year NAS review of bill's progress in reducing emissions. EPA must make recommendations based on NAS review, and Department of Treasury must act on EPA recommendations.
<b>Olver-Gilchrest</b> (H.R. 620)  <i>Climate Stewardship Act</i>	All 6 GHGs  74% of U.S. emissions covered	Electric utilities  Industries  Petroleum importers and refiners	2004 levels by 2012  1990 levels by 2020	22% below 1990 level in 2030  70% below 1990 level in 2050  (~ 56% below 2005 total economy-wide level in 2050)	Details to be determined by EPA.	Allowance banking and borrowing permitted.	Up to 15% of allowance requirements may be met by sequestration and domestic and international projects.	2-year Department of Commerce review of latest science and impacts to evaluate appropriateness of allowance quantities. Must include review of 2012 allowances.
<b>Waxman</b> (H.R. 1590)  <i>Safe Climate Act</i>	All 6 GHGs  100% of U.S. emissions covered	Economy-wide	2009 levels by 2010  2%/year reduction from 2011-2020  1990 levels by 2020  5%/year reduction from 2020-2029	5%/year reduction from 2030-2050  80% below 1990 levels by 2050	Details to be determined by President and EPA.  Requires some auction.	Allowance banking permitted.	Not specified.	5-year NAS review of U.S. progress in avoiding dangerous climate change, with any recommendations for target alteration. Federal agency must act on recommendations in 2 years, either with regulation or reason for non-regulation.

<sup>1</sup> For all bills except H.R. 6186 and H.R. 6316, percentage of emissions covered from: NRDC and WRI, "Greenhouse Emission Reductions under the Lieberman-Warner Bill (S. 2191)", December 2007, [http://docs.nrdc.org/globalwarming/glo\\_07120401A.pdf](http://docs.nrdc.org/globalwarming/glo_07120401A.pdf); and World Resources Institute (WRI), "Global Warming Legislation in the 110th Congress", December 2007, [http://pdf.wri.org/usclimatetargets\\_071207.pdf](http://pdf.wri.org/usclimatetargets_071207.pdf). For S. 2191, range includes sponsor's summary analysis, available at: <http://lieberman.senate.gov/documents/lwcaonepage.pdf>. H.R. 6186 information from Rep. Markey's website: [http://markey.house.gov/docs/icap\\_exec\\_sum.pdf](http://markey.house.gov/docs/icap_exec_sum.pdf). H.R. 6316 information from Rep. Doggett's title by title summary.

<sup>2</sup> References to total economy-wide 2005 levels also from NRDC and WRI, *op. cit.*, except for H.R. 6186 and 6316.