

## Comparison of Congressional Global Warming Bills

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Bill	Bill type & number of co-sponsors	GHG Targets	Preservation of state and local rights	Performance standards for motor vehicles or EGUs	Lead federal agency	Allowance allocation	Notes
<p><i>S.309 Global Warming Pollution Reduction Act (Sanders-Boxer)</i></p>	<p>Economy-wide bill; GHGs only.</p> <p>19 co-sponsors (including Boxer).</p>	<ul style="list-style-type: none"> <li>- By 2020, to 1990 levels.</li> <li>- By 2030, to 1/3 of 80% of 1990 levels (27% below 1990 levels).</li> <li>- By 2040, to 2/3 of 80% of 1990 levels (53% below 1990 levels).</li> <li>- By 2050, reduce emissions 80% below 1990 levels.</li> </ul>	<p>Sec. 718 preserves states' rights to be more stringent but silent on localities.</p>	<ul style="list-style-type: none"> <li>- Vehicles: Requires national adoption of CA2016 standards for MY2016 vehicles, but also requires GHG emission standards for heavier passenger vehicles and highway vehicles (MY2020). EPA can strengthen standards post MY2016/2020 if needed to meet reduction goals.</li> <li>- EGUs:               <ul style="list-style-type: none"> <li>- Beginning on 12/31/15, EGUs that began operation after 12/31/11 shall meet a global warming pollution emission standard that is not higher than the emission rate of a new combined cycle natural gas generating unit. 12/31/30 birthday provision.</li> <li>- Low-carbon generation requirement</li> <li>- EE performance standard</li> <li>- RPS beginning with 5% 2009-10 going up to 20% in 2020 and subsequent years</li> </ul> </li> </ul>	<p>EPA</p>	<p>Not clear how allowances allocated, but implied that they are allocated for free. If EPA is to implement a market-based program, some allowances shall be allocated to households and communities, EE, carbon sequestration, and those disproportionately affected by the GHG reduction program or global warming.</p>	<ul style="list-style-type: none"> <li>- EPA is authorized to promulgate "any rules that are necessary" to achieve targets. It also may establish one or more market-based programs (i.e., cap-and-trade).</li> <li>- renewable fuel content requirement.</li> </ul>

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<i>HR. 1590 Safe Climate Act of 2007 (Waxman)</i>	Economy-wide cap-and-trade bill; GHGs only.  152 co-sponsors.	- By 2010, stabilize at 2009 levels. - 2011-2020, an additional 2% reduction each year from previous calendar year, so that in 2020 reach 1990 levels. - 2021-2050, an additional 5% reduction each year from previous calendar year, so that by 2050 reach 80% below 1990 levels.	Sec. 707 preserves states' rights but silent on localities.	- Motor vehicle standards equal to or greater than CA standards. In 2014 and every 5 years thereafter revise. - EGUs: RPS standard that starts in 2010 (no level specified) and increases each year to reach no less than 20% by 2020. EE standards as well.	EPA	Option to allocate for free or auction, but if allocate for free, cannot result in "creation of windfall profits for covered entities." President to submit plan to Congress on distribution of allowances. Proceeds go to Climate Reinvestment Fund.	

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<i>HR.620 Climate Stewardship Act of 2007 (Olver)</i>	Economy-wide cap-and-trade bill; GHGs only  136 co-sponsors.	<ul style="list-style-type: none"> <li>- 2012-2019, # of tradeable allowances = 6150 MMT (about equal to 1990 emissions).</li> <li>- 2020-2029, # of tradeable allowances = 5,232 MMT (about a 16% reduction from 1990 levels).</li> <li>- 2030-2039, # of tradeable allowances = 3,858 MMT (about a 37% reduction from 1990 levels).</li> <li>- missing 2040-2048.</li> <li>- 2049 and thereafter, # of tradeable allowances = 1,504 MMT (about a 76% reduction from 1990 levels).</li> </ul>	Silent on state/local preemption.	None	EPA	Allowances are allocated for free. Administrator determines how many go to covered sectors and how many allocated to Climate Change Credit Corporation.	<ul style="list-style-type: none"> <li>- House version of McCain-Lieberman, but more stringent reduction target for 2050 and no provisions regarding advanced energy technologies or nuclear power (i.e., there is no Title III).</li> <li>- Sets up national GHG emissions registry.</li> </ul>

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<i>S.280 Climate Stewardship and Innovation Act of 2007 (Lieberman-McCain)</i>	Economy-wide cap-and-trade bill; GHGs only.  11 co-sponsors (including McCain).	- 2012-2019, # of tradeable allowances = 6130 MMT (about equal to 1990 emissions). - 2020-2029, # of tradeable allowances = 5,239 MMT (about a 16% reduction from 1990 levels). - 2030-2049, # of tradeable allowances = 4100 MMT (about a 34% reduction from 1990 levels). - 2050 and thereafter, # of tradeable allowances = 2096 MMT (about a 66% reduction from 1990 levels).	Silent on state/local preemption.	None	EPA	Allowances are allocated for free. Administrator determines how many go to covered sectors and how many allocated to Climate Change Credit Corporation. Administrator recommendation goes to Congress and treated as a “major rule.”	- Contains provisions to promote EE/RE technology (including nuclear) that are absent from Olver (Title III). - Sets up national GHG emissions registry.
<i>S.485 Global Warming Reduction Act of 2007 (Kerry/Snowe)</i>	Economy-wide cap-and-trade bill; GHGs only.  2 co-sponsors (including Snowe).	- By 2020, to 1990 levels. - 2021-2030, an additional 2.5% reduction each year. - 2031-2050, an additional 3.5% reduction each year. - 2050, 65% below 2000 levels (which is 60% below 1990 levels).	Silent on state/local preemption.	- Motor vehicles standards equal to or greater than CA standards. Revise in 2014 and every 5 years thereafter. - EGUs: - EE performance standard. - RPS beginning with 5% 2009-10 and going up to 20% in 2021 and subsequent years.	EPA	- Option to allocate for free or auction, but if allocate for free, cannot result in “creation of windfall profits for covered entities.” - President to submit plan to Congress on distribution of allowances.	Renewable fuel standard & provisions for E-85.

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<p><i>S. 1766 Low Carbon Economy Act of 2007 (Bingaman-Specter)</i></p>	<p>Economy-wide cap-and-trade bill; GHGs only.</p> <p>6 co-sponsors (including Specter).</p>	<p>- 2006 levels by 2020;  - 1990 levels by 2030 and each year thereafter;  - aspirational goal of 60% below current levels by 2050. If the President determines that the U.S.'s five largest trading partners are taking comparable actions with respect to GHG emissions, the President shall submit to Congress a report that recommends changes in GHG allowances quantities in future periods to meet this target.</p>	<p>Silent on state/local preemption.</p>	<p>EGUs: an EGU that begins operation after 12/31/06 can only receive an allowance allocation if:</p> <ul style="list-style-type: none"> <li>- Natural gas – emissions cannot exceed that of a new natural gas combined cycle facility, and it receives an allocation corresponding to the emissions rate and capacity factor of such a facility.</li> <li>- Coal – emissions cannot exceed the lowest economically achievable emissions level for a facility of that type, and it receives an allocation corresponding to the emissions rate and capacity factor of such a facility. Does not specify that CCS required.</li> </ul>	<p>Does not specify.</p>	<ul style="list-style-type: none"> <li>- Starts with 53% allocated to industry sectors, going down to 25% in 2030 and 0% in 2043 and thereafter.</li> <li>- 13-14 % of allowances set-aside for agricultural sequestration, early reductions and carbon capture and sequestration.</li> <li>- 9% of allowances allocated to states, based ½ on population and ½ on GHG emissions.</li> <li>- Remaining allowances to be auctioned, with proceeds to be used for technology, adaptation assistance and low income assistance.</li> </ul>	<p>Regulated entity may pay a technology accelerator payment (TAP) in lieu of submitting allowances. This TAP caps the price of allowances at the TAP level and also means the emissions “cap” isn’t firm. TAP price starts in 2012 at \$12 per metric ton of CO<sub>2</sub> equivalent and increases each year 5% above inflation. Funds received under the TAP mechanism are used for technology development and deployment.</p> <ul style="list-style-type: none"> <li>- GHG “tax” can be imposed on imports of a major trading partner if that country is not taking comparable action on GHGs.</li> </ul>

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<p><i>S.3036 Lieberman-Warner Climate Security Act of 2008 (Lieberman-Warner)</i></p>	<p>Economy-wide cap-and-trade bill; GHGs only.</p> <p>Cap covers 87% of US GHG emissions (electric power, transportation and industrial sectors and natural gas).</p> <p>No co-sponsors (11 co-sponsors for S.2191, which this bill replaces)</p>	<p>For CO<sub>2</sub> and 4 other GHGs:</p> <ul style="list-style-type: none"> <li>- By 2012, 4% below 2005 levels;</li> <li>- By 2020, 19% below 2005 levels;</li> <li>- By 2050, 71% below 2005 levels.</li> </ul> <p>HFCs:</p> <ul style="list-style-type: none"> <li>- By 2020, 15% below 2012 levels;</li> <li>- By 2030, 45% below 2012 levels;</li> <li>- By 2040, 70% below 2012 levels.</li> </ul> <p>WRI analysis: bill results in 17-19% reduction in total GHG emissions below 2005 levels (4-6% below 1990 levels) by 2020 and 57-63% reduction below 2005 levels (50-57% below 1990 levels) by 2050.</p>	<p>Section 1731 preserves states' rights to adopt or enforce "any standard, limitation, prohibition, or cap" relating to GHG emissions; or "any requirement relating to control, abatement, mitigation, or avoidance" of GHG emissions, as long as more stringent than federal provisions.</p>	<ul style="list-style-type: none"> <li>- None.</li> <li>- Low Carbon Fuel Standard: Lifecycle GHG emissions meet: <ul style="list-style-type: none"> <li><input type="checkbox"/> 2005 levels by 2011;</li> <li><input type="checkbox"/> 2012 through 2022, 2005 levels minus GHG reductions that result from the annual volumetric biofuel requirements under the EISA Renewable Fuels Standard;</li> <li><input type="checkbox"/> 5% below 2005 levels by 2023;</li> <li><input type="checkbox"/> 10% below 2005 levels by 2028 .</li> </ul> </li> </ul>	<p>EPA</p>	<ul style="list-style-type: none"> <li>-Free allocation to sources ends in 2030.</li> <li>- Sections 602-631 provide that allowances or the proceeds of auctioned allowances (up to 15% in 2012 phasing up to 26.75% in 2050 of total allowances) go to states, localities and tribes for, <i>inter alia</i>, assisting states that rely heavily on manufacturing and coal (§602), helping address impacts of climate change (§§621-631); promoting mass transit (§611); energy efficiency and conservation block grant program (§613); and rewarding leadership in reducing GHG emissions (§614). However, to receive §614 allowances, states with state or regional cap-and-trade programs must "transition to" the federal program.</li> </ul>	<ul style="list-style-type: none"> <li>- Cost containment provisions include banking, borrowing, offsets and overseas allowances. In addition, cap can be temporarily increased to avoid significant harm to the economy, though caps in later years must be decreased.</li> <li>- GHG tax-like mechanism similar to Bingaman-Specter.</li> <li>- Title XVII, Subtitle H directs the NAS to examine the costs/benefits of state cap&amp;trade programs, other state GHG reduction programs and their interaction with the federal program.</li> </ul>

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<i>H.R.6186 Investing in Climate Action and Protection Act (Markey)</i>	<p>Economy-wide cap-and-trade bill; GHGs only.</p> <p>Cap covers 87% of US GHG emissions (same as S.3036 plus geological carbon sequestration sites).</p> <p>No co-sponsors</p>	<p>- By 2012, reduce emissions to 2005 levels;</p> <p>- By 2020, 20% below 2005 levels;</p> <p>- By 2050, 85% below 2005 levels.</p>	<p>Silent on state/local preemption. (Amends Clean Air Act so savings clause in CAA applies.)</p>	<p>- EGUs: new coal-fired power plants must capture and sequester 85% of their CO<sub>2</sub> emissions.</p>	EPA	<p>- Auctions 94% of allowances beginning in 2012 with 100% auction by 2020.</p> <p>- National Energy Efficiency Fund includes incentives for states to increase electricity and natural gas efficiency, adopt building efficiency standards and adopt container recycling programs; grants for smart growth and mass transit; and funds for LIHEAP and weatherization.</p>	<p>- Cost containment provisions similar to S.3036.</p> <p>- GHG tax-like mechanism similar to Bingaman-Specter.</p>

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<i>H.R.6316 Climate Market, Auction, Trust &amp; Trade Emissions Reduction System Act of 2008 or Climate MATTERS (Blumenauer, Doggett and Van Hollen)</i>	<p>Economy-wide cap-and-trade bill; GHGs only.</p> <p>Excludes agriculture, forestry and small businesses from cap, but provides incentives for these sectors to reduce their emissions.</p> <p>78 co-sponsors.</p>	<p>- By 2020, 20% below 2012 levels.</p> <p>- By 2050, 80% below 1990 levels.</p>	<p>Section 405 preserves states' rights to adopt or enforce "any standard, cap, limitation, or prohibition" relating to GHG emissions; or "any requirement relating to control, abatement, or avoidance" of GHG emissions, as long as more stringent than federal provisions.</p>	<p>None.</p>	<p>Treasury</p>	<p>- Begins by auctioning 85% of all emissions allowances and moves to a 100% auction in 2020.</p> <p>- State and tribes eligible for 2.7% of allowances in Citizen Protection Fund (where 85% of auction proceeds and penalties go). Of this amount, 62% distributed to states in a general allocation; 7% for tribes; 6% to states that comply with §304(c) of the Energy Conservation &amp; Production Act; and 25% to states that prior to enactment, had more stringent state-wide GHG caps and imposed more stringent GHG limitations on covered sources.</p>	<p>- Cost containment provisions similar to S.3036.</p> <p>- GHG tax-like mechanism similar to Bingaman-Specter.</p>

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<i>S.1554 Energy Independence, Clean Air and Climate Security Act of 2007 (Collins-Lieberman)</i>	Multipollutant (NO <sub>x</sub> , SO <sub>2</sub> , mercury and GHGs); EGU cap-and-trade; motor vehicle and fuels provisions.  1 co-sponsor (Lieberman)	EGU reductions: In 2022 and each year thereafter, to 2.05 billion tons of carbon dioxide. This amount can be reduced if these emission limitations “are not reasonably anticipated to protect public health or welfare or the environment.”	- Sec. 713(a) preserves state rights to be more stringent (EGUs). - repeals preemption of state laws related to automobile fuel economy standards.	EGUs: - 1/1/16 or 40 years age: birthday provision. - EE resource standard. - RPS beginning with 1% in 2009 and up to 20% in 2020 and thereafter. Motor vehicles: - combined average fuel economy standards for cars and light trucks - requires setting average fuel economy standards for heavy duty vehicles.	EPA for EGUs; DOT for motor vehicles	Allowances mostly allocated for free to assorted groups, including households that use electricity; RE, EE, CHP and “new clean fossil fuel-fired EGUs;” for transition assistance, including transition assistance to EGUs.	Title II addresses in detail renewable fuels, including requirements to reduce average lifecycle GHG emissions of fuels.
<i>S.1201 Clean Power Act of 2007 (Sanders)</i>	Multipollutant (NO <sub>x</sub> , SO <sub>2</sub> , mercury and GHGs); EGU-only cap-and-trade.  3 co-sponsors.	EGU reductions: - 28% above 1990 levels by end of 2011. - 16.5% above 1990 levels by end of 2015. - At 1990 levels by end of 2020. - 17% below 1990 levels by end of 2025. - if economy-wide plan not adopted by end of 2012, then 2026 through 2050 an additional 3% reduction per year.	Sec. 721 preserves state and locality rights to be more stringent.	EGUs: - Beginning 12/31/15, EGUs that began operation after 12/31/11 shall meet a global warming pollution emission standard that is not higher than the emission rate of a new combined cycle natural gas generating unit. 12/31/30 birthday provision. - Low-carbon generation requirement. - EE performance standard. - RPS beginning with 5% 2008-9 going up to 20% in 2020 and subsequent years.	EPA	- 50% or more of allowances to be given to a trustee who has discretion to auction allowances or distribute them for public benefit and environmental purposes. - 15 years after enactment, all given to trustees “for auction.” Says auction both places, but trustee has other options than auctioning. - Administrator recommendation on allocation goes to Congress and treated as a “major rule.”	

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<i>S. 1168 Clean Air/Climate Change Act of 2007 (Alexander)</i>	Multipollutant (NO <sub>x</sub> , SO <sub>2</sub> , mercury and GHGs); EGU-only cap-and-trade.  1 co-sponsor.	EGU reductions: - Stabilize at 2006 levels (2300MMT) in 2011-2014. - 8.7% below 2006 levels in 2015-2019. - Reach 1990 levels approximately in 2020-2024. - 35% below 2006 levels (17% below 1990 levels) in 2025 and thereafter.	Sec. 106 preserves state and locality rights to be more stringent.	EGUs: EGUs constructed or modified on or after 12/31/15 must meet NSPS of 1100 lbs. CO <sub>2</sub> per MWh or less. CO <sub>2</sub> injected in geological storage not considered a CO <sub>2</sub> emission for purposes of this NSPS.	EPA	- Heat input-based allocation. - Within 2 years, develop procedure for auctioning 25% of allowances for 2011 and thereafter.	
<i>S.1177 Clean Air Planning Act of 2007 (Carper)</i>	Multipollutant (NO <sub>x</sub> , SO <sub>2</sub> , mercury and GHGs); EGU-only cap-and-trade.  12 co-sponsors.	EGU reductions: - Stabilize at 2006 levels in 2012-2014. - 2001 levels by 2015. - 2016-2019, reduce 1% each year. - 2020 and thereafter, reduce 1.5% each year.	Sec. 7 preserves state and locality rights to be more stringent.	None	EPA	- Output-based allocation. - Allowances mostly allocated at first, but auctioning ramped up each year. Start with 18% auction, 82% allocation in 2012, but each year 3% more allowances are auctioned so that by 2036, 100% auctioning.	

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<i>S.317 Electric Utility Cap and Trade Act of 2007 (Feinstein/Carper)</i>	GHG-only; EGU-only cap-and-trade.  1 co-sponsor (Carper).	EGU reductions: - Stabilize at 2006 levels in 2011-2014. - 2001 levels by 2015. - 2016-2019, reduce 1% each year. - 2020 and thereafter, reduce 1.5% each year.	Silent on state/local preemption.	None	EPA	- Output-based allocation - Allowances mostly allocated at first, but auctioning ramped up each year. Start with 15% auction, 85% allocation in 2011, but each year 3% more allowances are auctioned so that by 2036, 100% auctioning.	
<i>HR.2069 Save Our Climate Act of 2007 (Stark)</i>	Economy-wide carbon tax (tax on fuel).  3 co-sponsors.	- Tax is \$10/ton of carbon in fuel beginning 1/1/08; after 2008, increases by \$10 each year until 80% reduction from 1990 levels achieved. At that point, tax level freezes. - Tax credit for carbon sequestered or "embedded."	Silent on state/local preemption.	None	IRS	n/a	- Fuel is defined as coal, natural gas and petroleum or any petroleum product. - Silent on how tax proceeds to be used.