

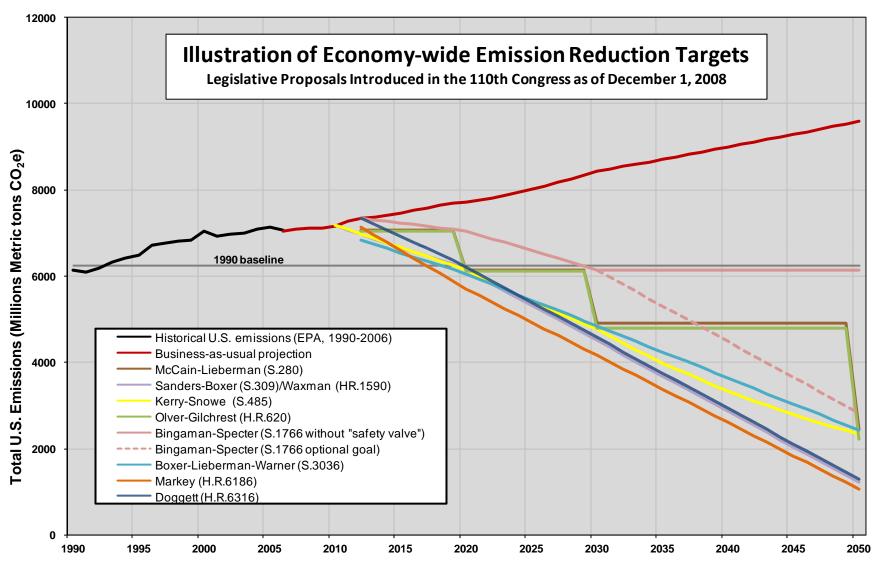
## Economy-wide Cap-and-Trade Proposals in the 110<sup>th</sup> Congress As of December 1, 2008

Bill	Scope of Coverage	2010-2019 Cap	2020-2029 Cap	2030-2050 Cap	Allocation	Offsets and Other Cost Controls	Early Action	Technology and Misc.
Boxer- Lieberman- Warner Lieberman-Warner Climate Security Act of 2008 S. 3036 - Substitute amendment to S. 2191 considered by full Senate in June 2008	6 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, and SF <sub>6</sub> Upstream for transport fuels & natural gas; downstream for large coal users and GHG manufacturers; separate HFC cap	4% below 2005 level in 2012	19% below 2005 level in 2020	71% below 2005 level in 2050	Sector allowances total 75.5% in 2012, including: 18% to power plants and 11% to manufacturers (transitions to zero in 2031); 12.75% to electricity and natural gas local distribution companies for consumers, 15% to states, etc. Increasing auction: 24.5% in 2012 rising to 58.75% from 2032- 2050 4.25% set-aside for domestic agriculture and forestry	30% limit on supply of domestic and international offsets, with additional limits on each category Creates cost-containment auction using future year allowances Borrowing up to 15% per company Creates Carbon Market Efficiency Board to monitor trading and implement specific cost relief measures, including increased borrowing and expanded offsets	5% of allowances reserved for early actors starting in 2012 with all value distributed within 4 years of enactment	Bonus allocations for carbon capture and storage and renewables Provides funds for technology, and human and ecosystem adaptation to climate change Cap-and-trade system performance and targets subject to review
Bingaman- Specter S. 1766 – 7/11/2007 Low Carbon Economy Act	6 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, and SF <sub>6</sub> Upstream for natural gas & petroleum; downstream for coal	Start at 2012 level in 2012	2006 level in 2020	1990 level in 2030 President may set long-term target ≥60% below 2006 level by 2050 contingent upon international effort	Some sector allocations are specified including: 9% to states, 53% to industry declining 2%/year starting in 2017 Increasing auction: 24% from 2012-2017, rising to 53% in 2030 5% set-aside of allowances for agricultural	Provides certain initial categories including bio sequestration and industrial offsets President may implement use of international offsets subject to 10% limit \$12/ton CO <sub>2</sub> e "technology accelerator payment" (i.e., safety valve) starting in 2012 and increasing 5%/year above inflation	From 2012- 2020, 1% of allowances allocated to those registering GHG reductions prior to enactment	Bonus allocation for carbon capture and storage Funds and incentives for technology R&D Target subject to 5-year review of new science and actions by other nations
Kerry-Snowe S.485 – 2/1/2007 Global Warming Reduction Act	6 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, and SF <sub>6</sub> Point of regulation not specified	Start at 2010 level in 2010	1990 level in 2020 2.5%/year reduction from 2020- 2029	3.5%/year reduction from 2030-2050 62% below 1990 level in 2050	Determined by the President; requires unspecified amount of allowances to be auctioned	Includes provision for offsets generated from biological sequestration	Goal to "recognize and reward early reductions"	Funds for tech. R&D, consumer impacts, adaptation Standards for vehicles, efficiency, & renewables
Sanders-Boxer S.309 – 1/16/2007 Global Warming Pollution Reduction Act	6 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, and SF <sub>6</sub> Point of regulation not specified	Start at 2010 level in 2010 2%/year reduction from 2010- 2020	1990 level in 2020	27% below 1990 level in 2030 53% below 1990 level in 2040 80% below 1990 level in 2050	Cap and trade permitted but not required. Allocation criteria include transition assistance and consumer impacts	Includes provision for offsets generated from biological sequestration "Technology-indexed stop price" freezes cap if prices high relative to tech options	Program may recognize early reductions made under state or local laws	Standards for vehicles, power plants, efficiency, renewables, certain categories of bio sequestration
McCain- Lieberman S.280 – 1/12/2007 Climate Stewardship and Innovation Act	6 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, and SF <sub>6</sub> Upstream for transportation sector; downstream for electric utilities & large sources	2004 level in 2012	1990 level in 2020	20% below 1990 level in 2030 60% below 1990 level in 2050	Administrator determines allocation/auction split; considering consumer impact, competitiveness, etc.	30% limit on use of international credits and domestic reduction or sequestration offsets Borrowing for 5-year periods with interest	Credit for reductions before 2012 Early actors may use offsets to meet 40% of reductions	Funds and incentives for tech R&D, efficiency adaptation, mitigating effects on poor



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Bill	Scope of Coverage	2010-2019 Cap	2020-2029 Cap	2030-2050 Cap	Allocation	Offsets and Other Cost Controls	Early Action	Technology and Misc.
Dingell-Boucher	7 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , and NF <sub>3</sub> Upstream for transport fuels & natural gas; downstream for electric utilities & large sources	Varies due to staggered coverage	6% below 2005 level in 2020	44% below 2005 level in 2030 80% below 2005 level in 2050	Four allowance value distribution options: 1) most value to covered entities, 2) less value to covered entities and more value to complementary GHG reduction initiatives than first option, 3) some value to adaptation, and 4) most value to consumer rebates and no value to covered entities or adaptation. All options include 100% auction by 2026	Increasing use of offsets (includes domestic and international): 5% initially reaching 35% by 2024 Cost-containment auction using future year reserve allowances Borrowing up to 15% per company with interest Creates carbon market oversight entity within FERC	3% of allowances for early actors in 2012 and transitioning to zero in 2026	Funds for energy efficiency and clean technologies (including CCS and renewables) Includes border adjustment provision State authority for cap- and-trade programs preempted
Doggett H.R. 6316 – 6/19/2008 <u>Climate Market,</u> <u>Auction, Trust &amp; Trade</u> <u>Emissions Reduction</u> <u>System Act of 2008</u> (Climate Matters Act of 2008)	6 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> Upstream for transport fuels & natural gas; downstream for large sources and large coal users	Start at 2012 level in 2012	1990 level in 2020	80% below 1990 level in 2050	<ul> <li>5% of allowances to power plants and 10% to energy- intensive manufacturers in 2012 (transitions to zero in 2020)</li> <li>85% of auction revenues directed to Citizen Protection Trust fund for consumer assistance, adaptation, technology, early action, etc.</li> </ul>	Overall limit of 25% on use of offsets with further limit on types: 10% domestic offsets; 15% international emission allowances; and 15% international forest allowances Creates Carbon Market Efficiency Board to monitor market and implement cost relief including increased borrowing and offsets	1% of Citizen Protection Trust Fund for early action in 2012, phasing to zero in 2015	Funds for energy efficiency & transportation State authority retention Includes border adjustment provision Cap-and-trade performance and targets subject to 3-year NAS review
Markey H.R. 6186 – 6/4/2008 Investing in Climate Action and Protection Act (iCAP Act)	7 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , and NF <sub>3</sub> Upstream for transport fuels, downstream for electric utilities and large sources, natural gas at LDCs	2005 level in 2012	20% below 2005 levels in 2020	85% below 2005 levels in 2050	6% of allowances to manufacturers from 2012-2020 Increasing auction: 94% from 2012-2019 rising to 100% from 2020-2050 Over 50% of auction proceeds used for tax credits/rebates to households for increases in energy costs	15% limit on use of domestic offsets 15% limit on use of international emission allowances or offset credits Creates carbon market oversight and enforcement office within FERC to monitor the market for allowances, derivatives, and offset credits Borrowing for 5-year periods with 10% interest	Program seeks not to penalize states and early reductions in distributing energy efficiency funds	Funds for clean energy technology, energy efficiency, adaptation, job training, etc. Performance standards for new coal-fired power plants
Waxman H.R.1590 – 3/20/2007 Safe Climate Act of 2007	$6 GHGs$ — $CO_2$ , $CH_4$ , N <sub>2</sub> O, HFCs, PFCs, and SF <sub>6</sub> Point of regulation not specified	2009 level in 2010 2%/year reduction 2011-2020	1990 levels in 2020 5%/year reduction 2020-2029	5%/year reduction from 2030-2050 80% below 1990 in 2050	Determined by the President; requires unspecified amount of allowances to be auctioned	Not specified	Goal to "recognize and reward early reductions"	Standards for vehicles, efficiency, renewables
Olver-Gilchrest H.R. 620 – 1/22/2007 Climate Stewardship Act	6 GHGs—CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, and SF <sub>6</sub> Upstream for transportation sector; downstream for electric utilities & large sources	2004 level in 2012	1990 level in 2020	22% below 1990 level in 2030 70% below 1990 levels in 2050	Administrator determines allocation/auction split; considering consumer impact, competitiveness, etc.	15% limit on use of international credits and domestic reduction or sequestration offsets Borrowing for 5-year periods with interest	Credit for reductions before 2012; early actors may use offsets to meet 35% of reductions	Funds and incentives for tech R&D, efficiency adaptation, mitigating effects on poor



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