

Economy-wide Cap-and-Trade Proposals in the 110th Congress

Includes Legislation Introduced as of May 30, 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 Substitute amendment to be debated by full Senate in June 2008; originally introduced 10/18/2007 as S.2191	All 6 GHGs Economy-wide, "hybrid" – 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	Free 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	All 6 GHGs Economy-wide, "hybrid" – upstream for natural gas & petroleum; downstream for coal	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 ₂ e "technology accelerator payment" (i.e., safety valve) starting in 2012 and increasing 5%/year above inflation Allows banking	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
McCain-Lieberman S.280 – 1/12/2007 Climate Stewardship and Innovation Act	All 6 GHGs Economy-wide, "hybrid" – 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
Sanders-Boxer S.309 – 1/16/2007 Global Warming Pollution Reduction Act	All 6 GHGs Economy-wide, point of regulation not specified	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
Kerry-Snowe S.485 – 2/1/2007 Global Warming Reduction Act	All 6 GHGs Economy-wide, point of regulation not specified	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

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Olver-Gilchrest H.R. 620 – 1/22/2007 Climate Stewardship Act	All 6 GHGs Economy-wide, “hybrid” – 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 level 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
Waxman H.R. 1590 – 3/20/2007 Safe Climate Act of 2007	All 6 GHGs Economy-wide, point of regulation not specified	2009 level in 2010 2%/year reduction from 2011-2020	1990 levels in 2020 5%/year reduction from 2020-2029	5%/year reduction from 2030-2050 80% below 1990 levels 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

Illustration of Total U.S. Greenhouse Gas Emissions Targets

This chart provides a rough comparison of the reduction targets for U.S. emissions contained in each legislative proposal. The percentage of emissions to be covered under a cap-and-trade program varies across the bills, as does the specificity regarding which entities and sectors are covered.

- Boxer-Lieberman-Warner** includes an overall goal of reducing total U.S. emissions through a combination of a cap on about 87% of U.S. emissions (including a separate cap on HFCs in commerce) and complementary policies (e.g., low carbon fuel standard and energy efficiency standards). The chart assumes the targets apply to total U.S. emissions; however, emissions from uncovered sectors may continue to grow.
- McCain-Lieberman** includes a cap on about 87% of U.S. emissions (transportation, electric power, industrial, and commercial sectors). The chart assumes these targets (e.g., 20% below 1990 levels by 2030) apply to total U.S. emissions; however, emissions from uncovered sectors may continue to grow.
- Olver-Gilchrest** includes a cap on about 87% of total U.S. emissions (transportation, electric power, industrial, and commercial sectors). The chart assumes these targets (e.g., 22% below 1990 levels by 2030) apply to total U.S. emissions; however, emissions from uncovered sectors may continue to grow.
- Sanders-Boxer and Waxman** include targets for total U.S. emissions, however, the sectors to be covered by the cap are not specified in the bill. The chart reflects these overall targets.
- Kerry-Snowe** includes targets for total U.S. emissions, however, the sectors to be covered by the cap are not specified in the bill. The chart reflects these overall targets.
- Bingaman-Specter** includes a cap on about 88% of total U.S. emissions. The **Bingaman-Specter policy** case reflects the change in emissions as estimated in the EIA’s January 2008 analysis of the bill based on triggering the “TAP” (or safety valve) in the 2017-2020 timeframe. The **Bingaman-Specter goal** case assumes multiple low-carbon policies, including:
 - Car & light truck fuel economy of 41 mpg by 2027
 - Federal RPS of 15% by 2020
 - Optimistic assumptions about new technologies coming online
 Implementation of these policies may delay triggering the “TAP” until 2026-2027 according to EIA, but it will be triggered and the goal will not be met in those years. In addition, the overall emissions targets for this case apply to total U.S. emissions; however, emissions from uncovered sectors may continue to grow.

