

## Economy-wide Cap-and-Trade Proposals in the 110<sup>th</sup> Congress

Includes Legislation Introduced as of October 18, 2007

Bill	Scope of Coverage	2010-2019 Cap	2020-2029 Cap	2030-2050 Cap	Offsets	Allocation	Other Cost Controls	Early Action	Technology and Misc.
<b>Lieberman-Warner</b> S. 2191 – 10/18/2007 America's Climate Security Act	All 6 GHGs Economy-wide, "hybrid" – upstream for transportation fuels; downstream for electric utilities and large sources	2005 level in 2012	15% below 2005 level in 2020	33% below 2005 level in 2030 52% below 2005 level in 2040 70% below 2005 level in 2050	15% limit on use of domestic offsets 15% limit on use of international credits	Increasing auction: 24% in 2012, rising to 73% from 2036-2050 Some sector allocations are specified including: 20% each to power plants and industry (transitions to zero in 2036), 9% to states, 10% to load serving entities (LSEs) 5% set-aside of allowances for agricultural and forests	Borrowing up to 15% per company Creates Carbon Market Efficiency Board to monitor the trading market and implement specific cost relief measures	5% of allowances for early action in 2012, phasing to zero in 2017	Bonus allocation for carbon capture and storage Funds and incentives for technology, adaptation, & mitigating effects on poor Cap-and-trade system performance and targets subject to 3-year NAS review
<b>Bingaman-Specter</b> S. 1766 – 7/11/2007 <a href="#">Low Carbon Economy Act</a>	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	Provides certain initial categories including bio sequestration and industrial offsets President may implement use of international offsets subject to 10% limit	Increasing auction: 24% from 2012-2017, rising to 53% in 2030 Some sector allocations are specified including: 9% to states, 53% to industry declining 2%/year starting in 2017 5% set-aside of allowances for agricultural	\$12/ton CO <sub>2</sub> 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
<b>McCain-Lieberman</b> S.280 – 1/12/2007 <a href="#">Climate Stewardship and Innovation Act</a>	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	30% limit on use of international credits and domestic reduction or sequestration offsets	Administrator determines allocation/auction split; considering consumer impact, competitiveness, etc.	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
<b>Sanders-Boxer</b> S.309 – 1/16/2007 <a href="#">Global Warming Pollution Reduction Act</a>	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	Includes provision for offsets generated from biological sequestration	Cap and trade permitted but not required. Allocation criteria include transition assistance and consumer impacts	"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
<b>Kerry-Snowe</b> S.485 – 2/1/2007 <a href="#">Global Warming Reduction Act</a>	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	Includes provision for offsets generated from biological sequestration	Determined by the President; requires unspecified amount of allowances to be auctioned	Not specified	Goal to "recognize and reward early reductions"	Funds for tech. R&D, consumer impacts, adaptation Standards for vehicles, efficiency, renewables, certain categories of bio sequestration

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<b>Olver-Gilchrest</b> H.R. 620 – 1/22/2007 <a href="#">Climate Stewardship Act</a>	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	15% limit on use of international credits and domestic reduction or sequestration offsets	Administrator determines allocation/auction split; considering consumer impact, competitiveness, etc.	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
<b>Waxman</b> H.R. 1590 – 3/20/2007 <a href="#">Safe Climate Act of 2007</a>	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	Not specified	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. 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.

(1) Lieberman-Warner includes an overall goal of reducing total U.S. emissions through a combination of a cap on approximately 75% of U.S. emissions (transportation, electric power, and industrial sectors) and complementary policies (e.g., energy efficiency standards). The projected total reductions in U.S. emissions are reflected in the chart.

(2) Bingaman-Specter includes a cap on about 88% of U.S. emissions and 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

Under these policies, the safety valve is not triggered. Without these policies the safety valve is expected to be reached in the early years and the target will be exceeded. The chart reflects these optimistic assumptions. In addition, the overall emissions targets (e.g., 1990 levels in 2030) are applied to total U.S. emissions; however, emissions from uncovered sectors may continue to grow.

(3) 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.

(4) Both Sanders-Boxer and Waxman include targets for total U.S. emissions, however, the percentage of emissions or sectors to be covered by the cap are not specified in the bill. The chart reflects these overall targets.

(5) Kerry-Snowe includes targets for total U.S. emissions, however, the percentage of emissions or sectors to be covered by the cap are not specified in the bill. The chart reflects these overall targets.

(6) 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.

