

# Primer on Lieberman-Warner Climate Security Act (S. 2191) – as reported out of Senate EPW Committee



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May 2008

## Lieberman-Warner Climate Security Act of 2007 (S. 2191)

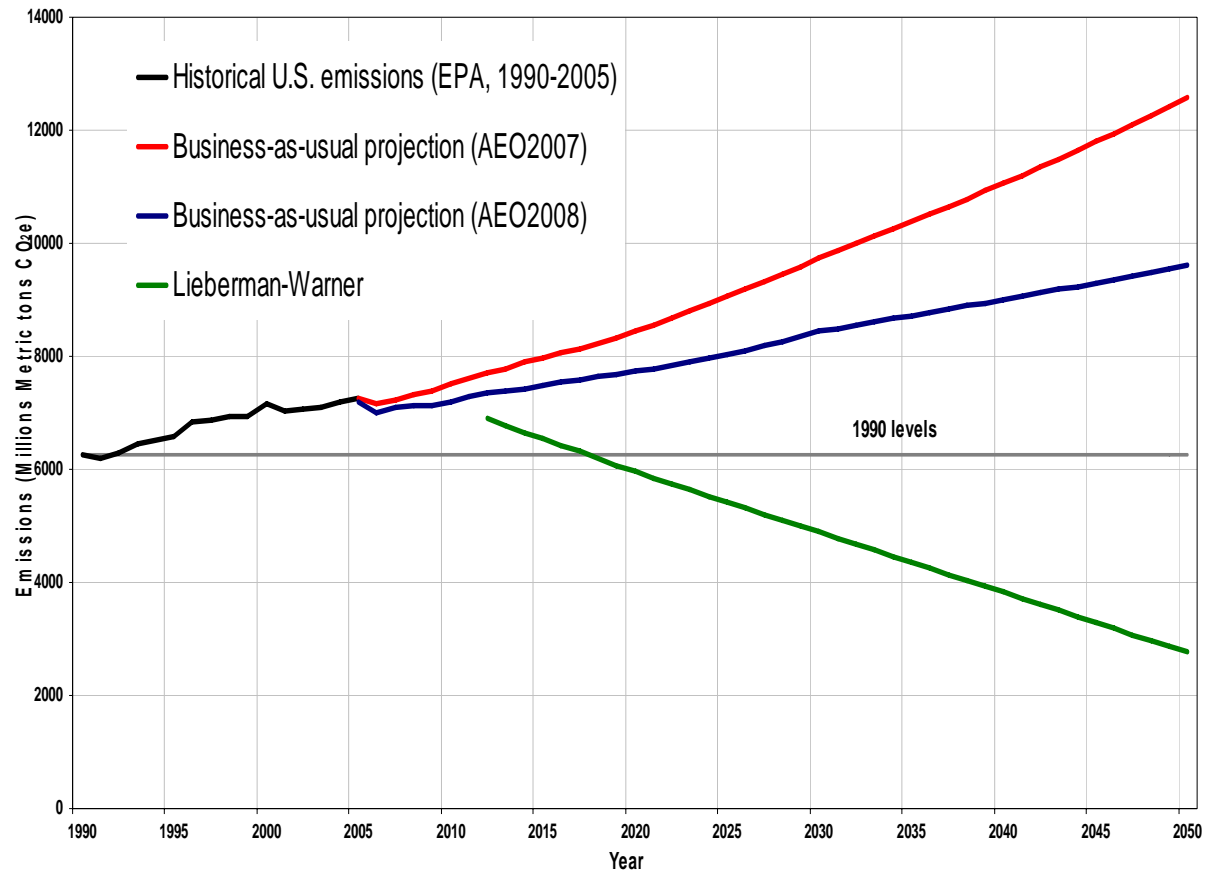
- **October 18, 2007** - Introduced by Senators Lieberman and Warner
- **November 1, 2007** – Reported out of Senate Subcommittee by vote of 4-3
- **December 5, 2007** – Reported out of Senate Environment and Public Works Committee to the full Senate by vote of 11-8
  - First time bill requiring economy-wide reductions in GHG emissions has been reported out of committee in the Senate or the House
  - Modeling runs discussed here based on this version
- **May 19, 2008** – Summary of new version released
- **June 2008** – Consideration by the full Senate?

- Covered sectors represent over 87% of total U.S. emissions
  - Downstream on coal (power plants and industries using over 5,000 tons of coal per year)
  - Upstream (producers and importers) on natural gas, petroleum, or coal-based liquid or gas fuels (assuming no sequestration or destruction)
  - Manufacturers or importers of >10K t/CO<sub>2</sub>e of GHGs (e.g., SF<sub>6</sub>, PFCs) assuming no sequestration/destruction
  - Facilities that emit HFCs (>10K tons) as byproduct of HCFC production (note: separate cap for HFC consumption)

But...

- Many industrial process emissions are not covered (e.g., cement, lime, and aluminum production) totaling roughly 104 MtCO<sub>2</sub>e (1.4% US emissions)
- Emissions from agriculture, landfills, etc. not covered – 826 MtCO<sub>2</sub>e (11% US emissions)

- Emissions caps require reductions across covered sectors below 2005 levels as follows:
  - 2012: 4%
  - 2020: 19%
  - 2050: 71%
- Reductions in total U.S. emissions would depend on the growth in uncovered sectors, use of offsets, etc.



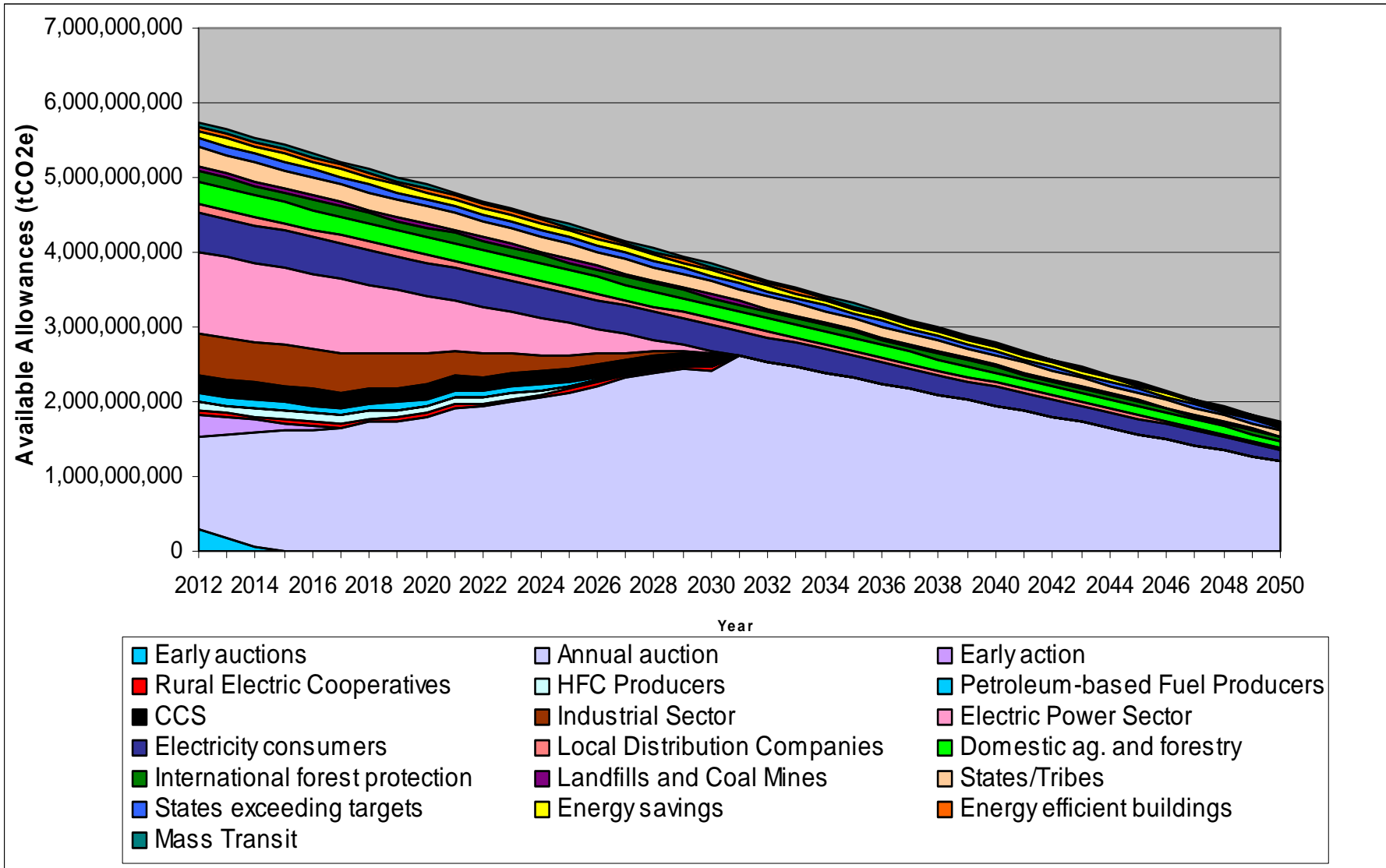
- Trading – Anyone can buy, hold, sell, and retire emission allowances
- Banking – Unlimited banking of allowances
- Borrowing – 15% of annual compliance obligation can be borrowed from future years (10% interest rate)
- Offsets – 15% of annual compliance obligation can be met by domestic offsets
- International Emission Allowances – 15% of annual compliance obligation can be met by credits from foreign trading programs of “comparable integrity and stringency”
- Carbon Market Efficiency Board (CMEB) – Authorized to increase offsets, borrowing, adjust loan periods and interest rates

- Total available allowances (targets) decline in each year
  - 2012: 5,775 MtCO<sub>2</sub>e
  - 2020: 4,924 MtCO<sub>2</sub>e
  - 2030: 3,860 MtCO<sub>2</sub>e
  - 2050: 1,732 MtCO<sub>2</sub>e
- Initial allocation in 2012
  - Freely allocated allowances: 73.5%
  - Auction: 26.5%

- Freely allocated allowances in 2012 (% of total allowances)
  - Fossil fuel-fired power plants: 19%\*
  - Energy intensive manufacturing: 10%\*
  - Companies that took early action: 5%\*
  - Bonus allowances for CCS: 4%\*
  - Petroleum importers and refiners: 2%\*
  - HFC producers and importers: 2%\*
  - Rural electric cooperatives: 1%\*
  - Electricity consumers (rebates/efficiency): 9%
  - Natural gas consumers: 2%
  - States and tribes: 11%
  - Set aside for agriculture, forestry sequestration: 5%
  - Fund program to reduce methane from landfills and coal mines: 1%
  - International forest protection: 2.5%

\*these phase out by 2031

# S. 2191 – Title III – Allocating Allowances



- Establishes Climate Change Credit Corporation (CCCC)
- Distribution of auctions revenue (% of auction revenue)\*
  - Energy technology deployment: 52%
  - Energy consumers: 18%
  - Worker training program: 5%
  - U.S. adaptation: 18%
  - International adaptation and national security: 5%
  - Advanced energy research: 2%

\*Proceeds from the auction are first used to fund EPA and other agency activities required by S. 2191 and to ensure adequate funds for Bureau of Land Management (capped at \$300 million) and Forest Service (capped at \$800 million) emergency firefighting programs

- Appliance efficiency (water heaters, space heating/AC)
- Building efficiency (updating bldg. codes)  
Note: Some overlap with EISA

- Separate declining cap on consumption and importation of HFC
  - Starts in 2010 and declines 70% by 2050
  - Combination of free allocation and auction of allowances in early years
  - Transitions to 100% auction by 2031
  - May not be traded with larger cap-and-trade program

- Low carbon fuel standard
  - 5% reduction in lifecycle GHG emissions by 2010
  - 10% reduction by 2020
- Recycling and emission reduction program
- Servicing of motor vehicle air conditioners

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