



SANITATION DISTRICTS OF LOS ANGELES COUNTY

Overview of Federal Climate Change Legislation

National Clean Water Policy Forum

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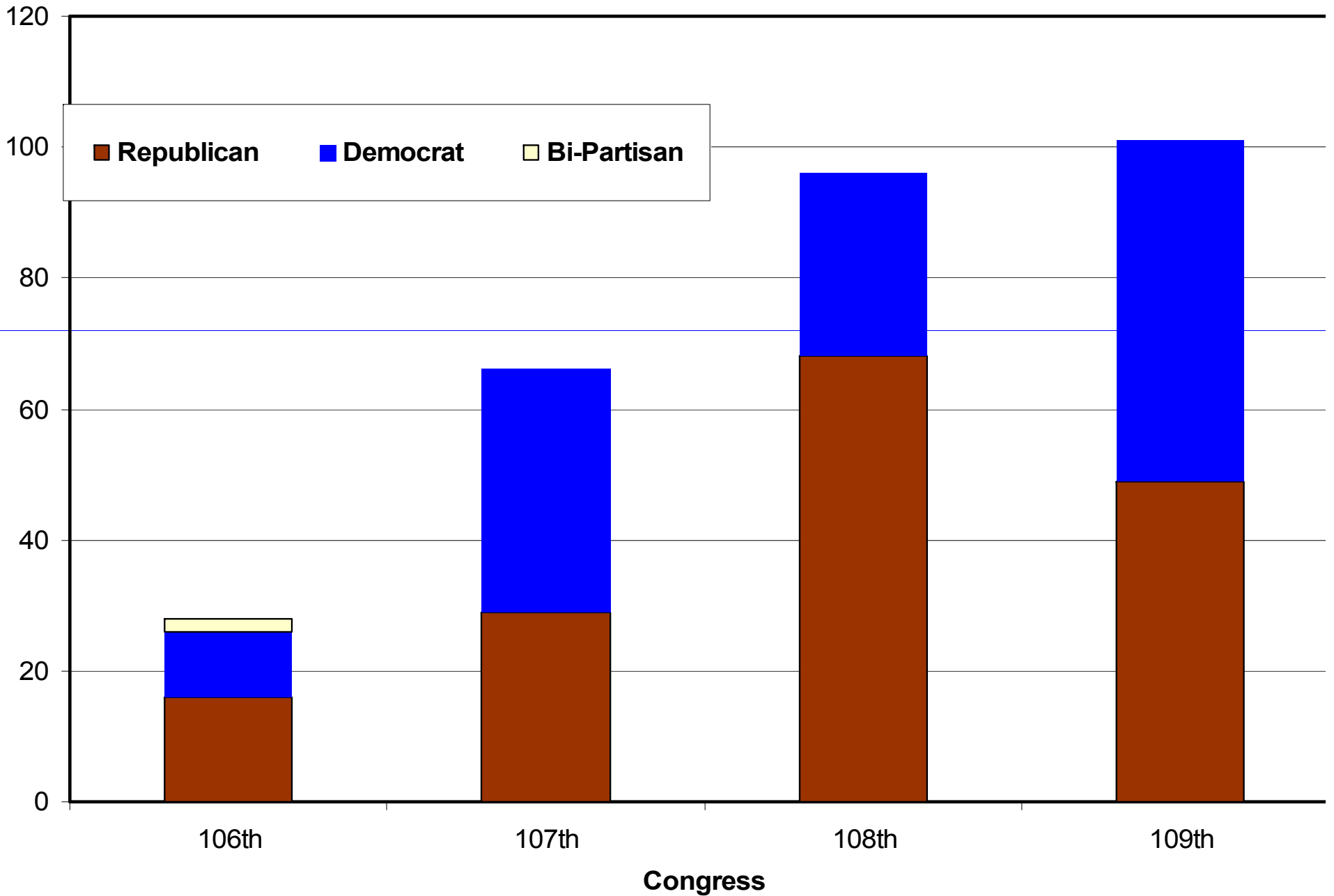
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Congressional Interest in Climate Change

- **1975:** First hearings on global warming occurred
- **1989:** Dr. James Hansen of NASA testifies before Al Gore's Senate Committee
- **1997:** The Byrd-Hagel Resolution passes 95-0
- **1998:** "Kyoto" never sent to the Senate for ratification
- **2003:** First McCain-Lieberman GHG Bill defeated
- **2004:** The Gilchrest-Olver Climate Stewardship Act is introduced.
- **2007:** House Speaker Nancy Pelosi sets a June deadline for House committee legislative action and establishes a Select Committee on Energy Independence and Global Warming

Proposed Federal Bills and Resolutions Addressing Climate Change



Legislative Action in the 110th Congress

- Thus far, 76 different measures proposed dealing with some element of climate change including:
 - Alternative/Renewable Fuels/Energy Sources
 - CO₂ Sequestration Studies
 - Cap and Trade
 - Climate Change Studies/Education
 - Congressional Body/Government Agency Protocols/Requirements
 - Cultural – Al Gore Commendation, Live Earth Concert
 - Economic/Tax Incentives/Disincentives
 - Energy Security – Foreign Dependence/CAFE
 - Infrastructure Improvement/Development
 - International Agreements/Partnerships
 - Mandated GHG Reductions

Greenhouse Gases (GHGs) And Global Warming Potential (GWP)

GHG	100-yr GWP
CO ₂	1
CH ₄	23
N ₂ O	296
HCFC's	120-12,000
PFC's	5,700 – 11,900
SF ₆	22,200

- GWP: Measurement of the heat trapping potential of various GHGs relative to CO₂

Source: Intergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis* (Cambridge, UK: Cambridge University Press, 2001).

The Bills – March/April 2007

- **S. 280**
 - **Climate Stewardship and Innovation Act of 2007**
- **H.R. 620**
 - **Climate Stewardship Act of 2007**
- **S. 309**
 - **Global Warming Pollution Reduction Act**
- **H.R. 1590**
 - **Safe Climate Act of 2007**
- **S. (Discussion Draft)**
 - **Sens. Bingaman and Specter**
(National Commission on Energy Policy)

What do the Bills Fundamentally Attempt to Accomplish?

- CAP emissions by 2012**
- Significantly roll back CO₂ plus 5 other GHGs so that by 2050 they are as much as 80% below 1990 Levels**

How Do the Bills Generally Go About Doing This?

- Allocate tradeable GHG emission allowances to many entities across the economy
- Unlawful for a regulated entity to release GHGs into atmosphere w/o tendering to the government a sufficient number of allowances, or by buying or borrowing same
- Most allow substitution of offset rights for a portion of the obligation
- Most require sector specific approaches
- All revenues/penalties to new trust fund or similar entity

Bill Summaries

- **S. 280:** Sens. Lieberman, McCain, Obama, Clinton
- **Title:** Climate Stewardship and Innovation Act of 2007
- **Introduced:** January 12, 2007
- **Coverage:** Economy-wide, primarily at point of emission (downstream)
- **Summary:** Creates framework for Environmental Protection Agency (EPA) allocation, starting 2012, of tradeable GHG emission allowances without charge to electricity generators, fuel importers and refiners, industrial and commercial entities with more than 10,000 metric tons of annual GHG emissions. Allocations begin at approximately 2004 levels and decline 65% by 2050. Covered entities must tender allowances for all emissions based on annual reports to new national GHG registry. Some allowances must be auctioned to fund new Climate Change Credit Corp. with at least 50% of Corp's budget going to clean energy R&D, including nuclear power; balance goes to ease economic impact of new emissions trading program on various groups.
- **H.R. 620:** Reps. Olver, Gilchrest
- **Summary:** Climate Stewardship Act of 2007, a companion bill to S. 280, but with reduced aid for new technologies.

Bill Summaries

- **S. 309:** Sens. Sanders, Boxer, Kennedy
- **Title:** Global Warming Pollution Reduction Act
- **Introduced:** January 16, 2007
- **Coverage:** Economy-wide; point of regulation to be determined by EPA
- **Summary:** Tasks EPA with adopting “any rules necessary,” including cap and trade system, if appropriate, to reduce GHG emissions to 1990 levels by 2012 and 80% below that by 2050. Requires new low-carbon vehicle emission standards, beginning 2016. Sets new low-carbon performance standards for electricity generators and mandates demand-side energy conservation with 9% net electricity reduction by 2020. Also sets new nationwide renewable energy portfolio standard (RPS) at 5% in 2009, rising 20% in 2020.

Bill Summaries

- **H.R. 1590:** Rep. Waxman
- **Title:** Safe Climate Act of 2007
- **Summary:** A streamlined version of S. 309 with like reduction targets. However, the bill directs the President to present Congress with an initial plan for distribution of emission allowances by auction or otherwise. Congress has one year to review. Any auction proceeds go to a new Climate Reinvestment Fund.

Bill Summaries

- **S. (Discussion Draft):** Sens. Bingaman and Specter
- **Title:** (Untitled)
- **Introduced:** January 17, 2007
- **Coverage:** Economy-wide, primarily on fossil fuel producers and importers (upstream)
- **Summary:** Tasks Dept. of Energy (DOE) with adopting a program for tradeable emission allocations to reduce intensity of GHG emissions economy-wide by approximately 2.6% annually for 2012-2021; and 3.0% annually for 2021-2030. DOE scheme must provide for following initial allocations: electricity generators (30%); coal mines (7%); petroleum refineries (4%); natural gas processing (2%); cement, chemical and other carbon-intensive industries (10%); agricultural sequestration (5%); for early GHG reductions by industry (1%); auctions (10%); and state governments (29%). Auction allocation rises to 20% in 2021 by reducing industry allocations. Covered entities must submit allowances annually or use offsets or pay “safety valve” price of \$7 per metric ton of carbon. Up to \$50 billion in auction and safety valve revenues will capitalize new Climate Change Trust Fund to support low carbon energy technology, advanced coal plants, carbon sequestration, cellulose biomass, and fuel efficient vehicles.

Design Considerations

1. Whose emissions should be capped?
 - The largest sources?
 - 85% US GHG attributed to relatively few industries and transportation sector with EGFs @ 35%
 - All end users?
 - Greatest administrative costs
 - Greatest opportunities to capture low cost reductions

Design Considerations (con't)

2. Upstream or Downstream Caps?

- Upstream (Bingaman): Coal mines, oil refineries, natural gas processors and fuel importers
 - Fewer Sources: Easier administratively
 - No incentives or signals to change behavior
- Downstream (Everyone Else): Power plants and factories
 - Vastly more sources (automobiles) to regulate
 - More difficult administratively
 - Enforcement and verification more difficult
 - Incentives to reduce pollution more obvious

Design Considerations (con't)

3. Should there be an absolute cap or intensity based cap?

- Bingaman proposes a mass of CO₂ per \$ of GDP output cap with annual reductions of 2.6% starting after 2012 (and thru 2021).
- Emissions can increase with growing GDP to 2020.
- Most other bills want absolute mass caps and net annual reductions.

Design Considerations (con't)

4. Should there be a safety valve?

- Bingaman proposes a \$7/ ton CO₂ buyout to increase 5% per annum plus inflation
- Government price fixing?
- Technology based cap on allowances based on avoided CO₂ emissions by deploying a renewable energy source like wind power.
- Use offsets in lieu of allowances.

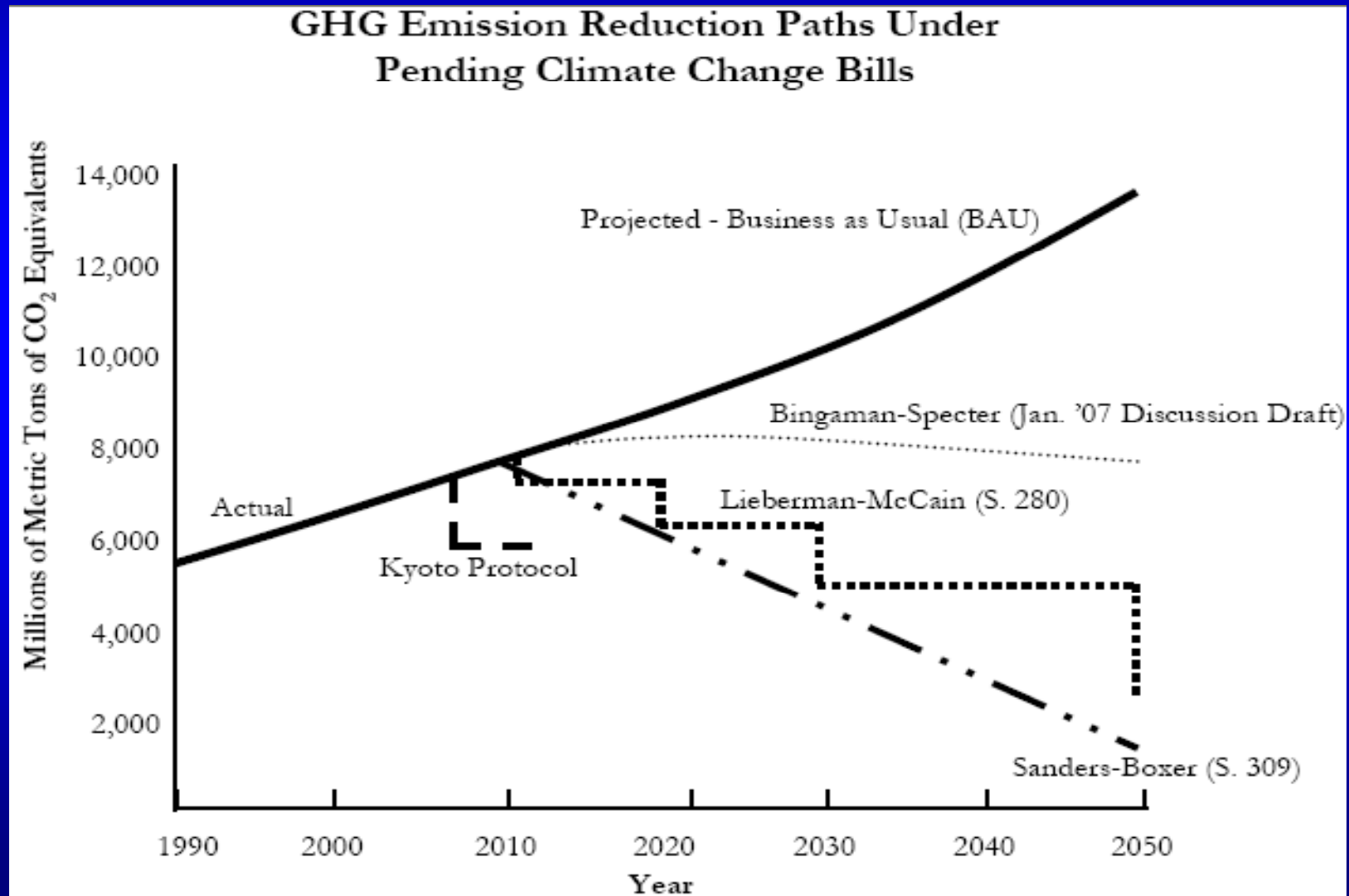
Design Considerations (con't)

5. Who should get the emission allowances and should they be free?

- Auctionable quantities → great sources of revenues for “less efficient” government to manage
- Free allocations may reward current emitters (overstated emissions) and make it more difficult for new and possibly more C-efficient participants to enter the market but offer lower transaction costs; would not be a de facto tax
- Free allowances may not change behavior
- Allocation approaches differ

Design Considerations (con't)

6. How much and how quickly to reduce emissions?



Design Considerations (con't)

7. Biological sequestration, international and early reduction credits

- Important for agricultural communities
- EU recognizes CERs via CDM in Kyoto Protocol
- All but Kerry-Snowe recognize early reduction credits, but all differ on eligibility requirements
- Weaken incentives for direct emissions reductions
- Accreditation and verification is difficult

Design Considerations (con't)

8. Pre-emption of State Regulations

- For the most part, with exception of certain sector-specific programs, all proposals are silent, and therefore would allow states to adopt stricter standards.

Design Considerations (con't)

9. Prospects for new legislation:

- Senate → Climate change legislation
 - Committee on Energy and Natural Resources (Bingaman)
 - Committee on Environment and Public Works (Boxer)
- House → Committee on Energy and Commerce (Dingell)
 - Absent catastrophic event, action unlikely in 110th Congress
 - 111th Congress convenes in 2009