



Energy and Climate Legislation



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Government Affairs Session

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Session Objectives

1. Provide overview of key legislation and options
2. Highlight CIBO issues identified in House energy and climate bill
3. Exchange views on potential outcome, for CIBO planning.



Major Climate/Energy Bills

- **H.R. 2454**, The American Clean Energy and Security Act (Waxman-Markey bill) passed the House by a vote of 219-212 on June 26, 2009.
- **S. 1733**, The Clean Energy Jobs and American Power Act (Kerry-Boxer Bill) was introduced in the Senate on September 30th.



Major Climate/Energy Bills cont'd.

- **S. 1462**, The American Clean Energy Leadership Act of 2009, (Bingaman Bill) was approved by the Senate Energy and Natural Resources Committee on July 16th.
- *Possible “sleeper” not yet introduced:* The Carbon Limits and Energy for America’s Renewal Act (Cantwell Bill).



Comparison of Hse and Senate Energy Provisions

Provision	H.R. 2454	S. 1462	S. 1733
Renewable Electricity Standard (RES)	<p>16% RES by 2012, moving to 20% by 2020</p> <p>Utilities can meet these requirements by purchasing “renewable” electricity from industrials</p> <p>Up to 25% of obligation can come from efficiency improvements; states may petition for up to 40%</p> <p>No RES credit for nuclear, CCS, non-incremental hydropower, non-renewable biomass</p>	<p>3% by 2011; 15% by 2021</p> <p>Utilities can purchase “renewable” electricity from industrials</p> <p>27% from efficiency improvements</p> <p>RES credit trading program</p> <p>No RES credit for nuclear, CCS, non-incremental hydropower, non-renewable biomass</p>	No RES provision



Renewable Electricity Standard (RES)

Provision	H.R. 2454	S. 1462	S. 1733
Biomass Definition & Feedstocks	Expands woody biomass eligibility from federal lands, and previously cultivated crop restrictions from EISA.	Broadest definition – increased eligibility from federal lands, plant material, wood byproducts.	Restricts crop use and woody biomass eligibility from federal lands.
	Thinning materials an removed invasive species from public lands; plant material; wood, pulp or paper byproducts, etc.	Wood byproducts (RR ties), trimmings, food waste, algae, crops and byproducts, etc.	Plant material pre-2009; Algae; some waste products; non-federal woody biomass.



Energy Efficiency

Provision	H.R. 2454	S. 1462	S. 1733
Energy & Water Efficiency	EPA WaterSense program	DOE study on baseline water use	EPA WaterSense program; procurement reqts
Building EE standards	<ul style="list-style-type: none"> • Updated bldg codes every 3 years • Retrofit program for residential/ non/residential structures • Lighting and appliance stds 	<ul style="list-style-type: none"> • Updated bldg codes • Retrofit program • Lighting and appliance stds 	Same as H.R. 2454
Transportation	Vehicle stds, state emission reduction goals, enhanced SmartWay program	DOE study of alternative fuels in heavy duty engines and planes	Same as H.R. 2454, heavy duty vehicle standards.



Energy Efficiency cont'd.

Provision	H.R. 2454	S. 1492	S. 1733
Smart Grid & Transmission Planning	State regulatory requirement within three years	Funding and national grid efficiency goals.	Allocations to states for development
Industrial Energy Efficiency	<ul style="list-style-type: none"> •Run by DOE •Electric & thermal Waste energy recovery reward program •Motor efficiency rebate program •Clean energy manufacturing revolving loan fund •Clean EE manufacturing partnerships 	<ul style="list-style-type: none"> •DOE grants • Manufacturing revolving loan fund • Motor efficiency rebate program •Establishment of industrial research and assessment centers (IACs) 	None



Energy Efficiency cont'd.

Provision	H.R. 2454	S. 1462	S. 1733
Carbon Capture & Sequestration	National strategy; Demo and deployment program; bonus allowances	10-year, R&D and Demo program	National strategy; Demo and deployment program; bonus allowances
Carbon Market Oversight	CFTC default regulator with Presidential discretion	N/A	“Sense of the Senate” for oversight program
Nuclear	Loan guarantee and clean energy investment funds for nuclear and advanced technologies	Commission on waste; Funding authorization increase	Worker training and safety programs



Energy Efficiency cont'd.

	H.R.2454	S.1492	S.1733
Combined Heat and Power	Generators with long-term power purchase agreements receive 1.5% of allowance	Qualifies as efficiency credits under RES	Generators receive an unknown % of allowances
Utility unit definition	Sec. 700(50) “...that supplies 1/3 or less...and 25 MW or less of electrical out put for sale”	Not defined	Identical to H.R.2454



CIBO Issues re: H.R. 2454 - Energy

1) Utility Definition; CHP Utilization; Useful Thermal Energy

- Definition of Non-EGU unit should be consistent with CAA Acid Rain Title IV wording:

*(C) a unit that co-generates steam and electricity is not a “utility unit” for purposes of this title unless the unit is constructed for the purpose of supplying, or commences construction after the date of enactment of this title and supplies more than one-third of its potential electric output capacity **and** more than 25 megawatts electrical output to any utility power distribution system for sale.*

H.R. 2454 inverted the wording and results in the “and” being an “or”.

- Industrial and Institutional thermal and CHP and fixed price contract IPP EGUs (Non EGUs) must be considered as separate entities from EGUs



CIBO Issues re: H.R. 2454 – Energy cont'd.

- IPP facilities or other QF EGUs under fixed priced non-changeable power purchase agreements must be given Non-EGU classification until such time that their power purchase agreement or qualifying status expires.
- CHP facilities must be defined to include any units combusting any fuel, which sell steam and/or electricity directly to single or multiple, separately-owned industrial or commercial facilities co-located at the same site with or adjacent to the cogeneration facility.
- Any bill must consider both useful thermal energy and electrical energy. For example, referenced ASM fuel costs include purchased steam. All direct fuel provisions need to specifically also include purchased useful thermal energy such as steam.



CIBO Issues re H.R. 2454 – Energy cont'd.

2) Fuels; Biomass; Feedstocks

- The definition for fuel should include any fossil or non-fossil material that is not considered a renewable biomass transportation fuel that is used to generate either thermal or electrical energy.
- Any Renewable Biomass Definition should include any biomaterials grown specifically for fuel, any products derived from the reclamation or remediation of public or private lands, and/or any byproducts or residues from biofuels harvesting or from biofuels and bio-based materials production facilities.
- Natural gas, wood forest products or other solid, liquid or gaseous products used as feedstocks for high value products must be protected and not included in any GHG emission calculation and given the appropriate compensatory allowances.



Possible Cantwell Bill

- Upstream cap on fossil carbon as it enters the economy. Cap declines gradually.
- 80% reduction by 2050 without allowances or offsets.
- 100% auction open only to energy producers and importers, with
 - prices set by the market within bounded price collar
 - equal monthly distribution of revenues to “every American”



Quick Glance at Key House and Senate Climate Bills

	Waxman-Markey H.R. 2454	Kerry-Boxer S. 1733
Emission Targets	2012 – 3% 2020 – 17% 2050 – 83%	2012 – 3% 2020 – 20% 2050 – 83%
Coverage	> 25,000 CO ₂ e 2014 – Industrial Sector	> 25,000 CO ₂ e 2014 – Industrial Sector
Allowances	2012 – 4.6 billion 2020 – 5 billion 2030 – 3.5 billion 2050 – 1 billion	2012 – 4.6 billion 2020 – 5 billion 2030 – 3.5 billion 2050 – 1 billion
Preemption	HAPs, NSR, partial Regional plans	Limited Regional plans, no CAA preemption



Reduction Targets & Timetables

H.R. 2454 - Climate

- 2012: 3% below 2005
- 2020: 17% below 2005
- 2030: 42% below 2005
- 2050: 83% below 2005

Amendments to Title VI of CAA to impose declining consumption cap on HFC emissions

Mandatory NAS review

S. 1733 - Climate

- 2012: 3% below 2005
- 2020: 20% below 2005
- 2030: 40% below 2005
- 2050: 83% below 2005

Primary cap brings in 3 phases from 2012-2016



Covered Gases and Mandatory Reporting

H.R. 2454 - Climate

- 5 Kyoto gases plus NF3; EPA may add others
- Mandatory GHG reporting
 - Applies to all covered entities and others

Applicability threshold down to 10,000 tons CO₂e, 25,000 ton for vehicle fleets

S. 1733 - Climate

- 5 Kyoto gases plus NF3; EPA may add others
- Mandatory GHG reporting
 - Applies to all covered entities and others
 - Required by 2011 for all prior years through 2007Qtrly reporting beginning in 2011



Point of Regulation-- covered sources

H.R. 2454 - Climate

- 2012: EGUs (downstream); natural gas/petroleum/coal liquids that when combusted emit at least 25 K tons of CO₂e (upstream)
- 2014: industrial sources emitting at least 25K tons excluding petroleum and renewable biomass combustion (downstream), plus all size industrial sources in trade/energy intensive industries
- 2016: natural gas Local Distribution Companies

S. 1733 - Climate

Similar approach to H.R. 2454



Allowances/auction revenues available for sectors/groups (% from total allowance pool)

H.R. 2454 - Climate

- Electricity consumers through LDCs: 37.5 % in 2012
- Merchant coal generators: 6.3% in 2012
- Natural gas consumers: 9% in 2016
- Home heating oil/propane consumers: 1.9% in 2012
- Low-income consumers: 15% through 2050 (auction revenues)
- EE/renewable energy: 9.5% grant to states in 2012
- Refiners reduction: 10.5% in 2014
- Deficit reduction: 10.5% in 2012, declining until 2030, then 17% in 2030 (auction revenues)

S. 1733 - Climate

- Current bill does not fully designate allocation of auctioned or freely distributed permits.
- Allowance values distributed to support various federal, state and local programs to benefit consumers, and some regulated entities/eligible sectors based on NAICS.
- Follows Inslee-Doyle Output-based Rebating (OBR) model of providing rebates to carbon intensive manufacturers



H.R. 2454 Special allocation to energy/trade intensive industries

15% in 2014; must meet either of eligibility criteria:

(1) Combination of Trade, Energy, GHG Intensity

Trade Intensity Metric

- $(\text{value of imports} + \text{exports}) / (\text{value of shipments} + \text{imports}) > 15\%$

and Energy Intensity Metric

- energy cost/value of shipments $> 5\%$

or GHG Intensity Metric

- (direct + indirect CO₂e per ton)

*\$20/value of shipments $> 5\%$



H.R. 2454 Special allocation cont'd.

(2) Very Energy or GHG intense

-- Energy Intensity Metric

- Energy cost/value of shipments > 20%

or GHG Intensity Metric

- (direct +indirect CO₂e per ton)

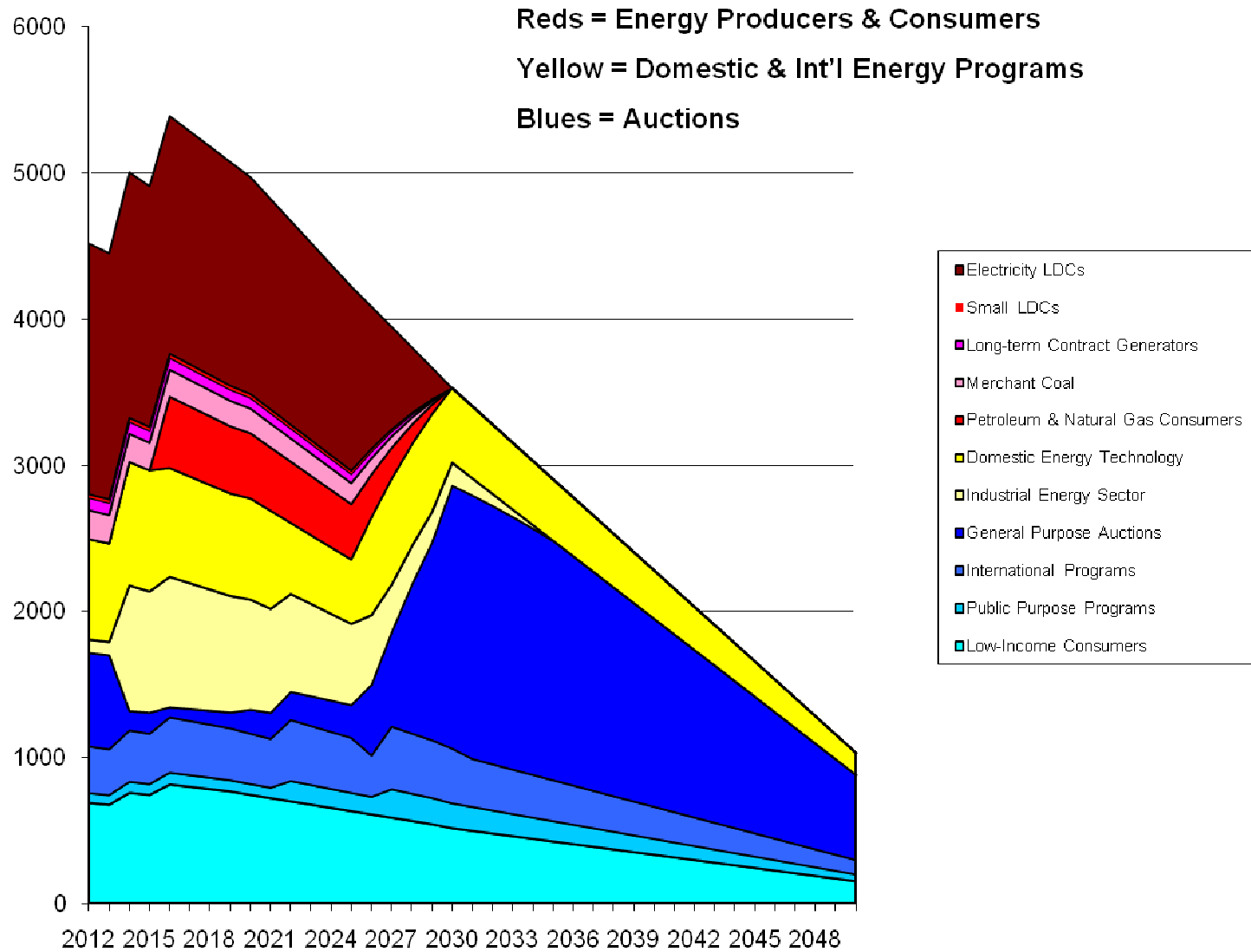
* \$20/value of shipments > 20%



H.R. 2454 Qualifying Industrial Sectors

- Pulp, Paper & Newsprint Mills
- Basic Chemicals
- Nitrogenous fertilizer
- Glass Production
- Cement
- Fiberglass
- Iron and Steel
- Aluminum
- Copper
- Other Industries

Allowance Distribution Schedule 2012 - 2050

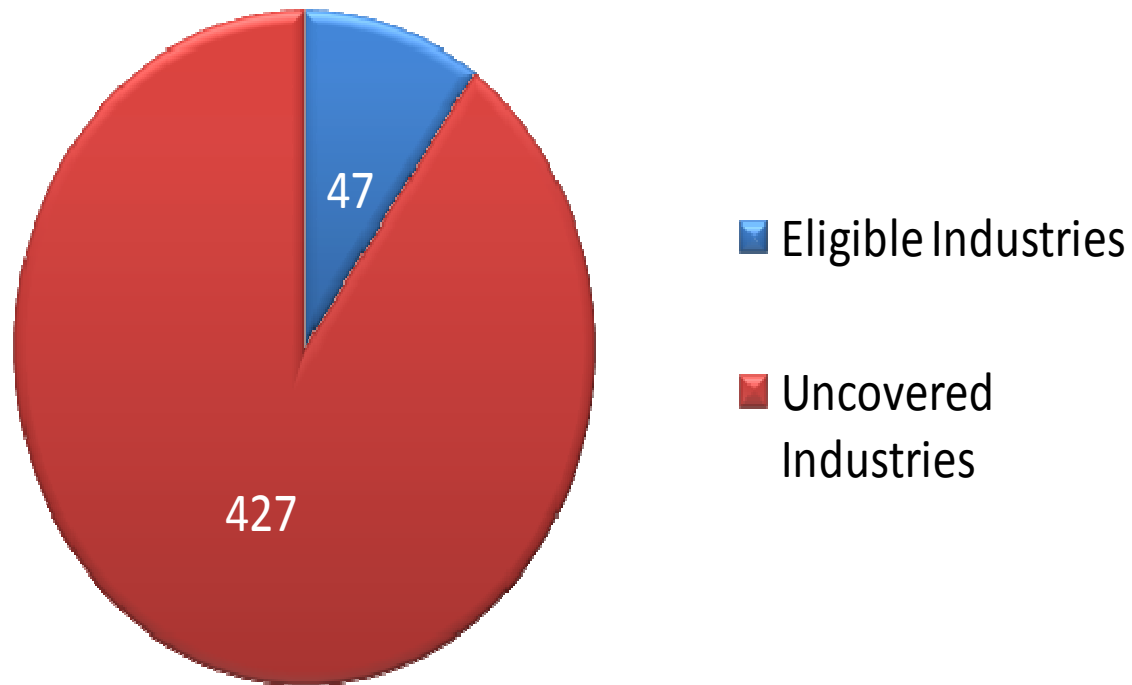




Distribution of Free Allowances

(H.R. 2454)

Industrial Sectors (NAICS Codes) Qualifying for Allowances





Variety of Cost-Containment Measures

H.R. 2454 - Climate

- Allowance trading (no restrictions)
- Banking (not limited)
- Borrowing (with & without interest)
- Strategic reserve (only available to covered entities, lots of restrictions; \$28 minimum price)
- International allowances (program must be at least as stringent as US)

S. 1733 - Climate

Similar to H.R. 2454



Offsets Allowed

H.R. 2454 - Climate

- Allows capped sources to use up to 2 billion offsets of allowances annually (split between domestic and international offsets)
 - Gives EPA USDA broad authority
 - Allows some exchange for early action offset credits
- Establishes key principles for agricultural and forestry offsets

S. 1733 - Climate

- Allows capped sources to use up to 2 billion offsets...
- Offsets registry for qualifying projects and issued credits.
- President directed to establish program with regulations ensuring offsets are verifiable, additional and permanent.



CIBO Issues re H.R. 2454 – Energy/Climate cont'd.

3) CO₂ Sequestration

Any GHG bill should require a comprehensive national strategy to address key legal, regulatory, technological and other barriers relative to biological sequestration. This is a critical item that must be pushed forward as quickly as possible so that some certainty can be gained around the ability to safely sequester CO₂.

4) Additional GHG Standards

Provisions exempting GHGs from regulation under the Clean Air Act as criteria pollutants (CAA Sec. 108), as hazardous air pollutants (CAA Sec. 112), and from affecting NSR obligations, for consistency, should be extended to prevent the NSPS program (Sec. 11) from covering “uncapped” sources with GHG emissions higher than 10,000 metric tons of CO₂e.



CIBO Issues re H.R. 2454 – Climate cont'd.

- Any additional GHG generated as a result of EPA emission reduction regulations must be exempted from GHG emissions limitations, including direct emissions associated with emission controls and emissions associated with increased fuel and power requirements to operate the emissions control systems.
- Energy Efficiency improvements should be treated for their full GHG equivalent value. Broad use of offsets is one way to advance energy efficiency improvements.
- Any GHG bill should specifically state that CO₂ is not a CAA regulated pollutant and require the EPA to treat emissions of any GHG by any entity as a non-air quality impact requiring full notice and comment and cost-benefit analyses.



CIBO Issues re H.R. 2454 – Energy/Climate cont'd.

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CIBO Issues re H.R. 2454 – Climate cont'd.

5) Energy-Intensive Industries

El industries are particularly susceptible to global competition and must be adequately compensated to allow continued production, associated jobs and overall economic contribution in the USA and prevent leakage to non-controlled global areas. Using NAICS Code-based data as the basis for this compensation presents significant problems for complex industries that must be addressed.

6) Federal Preemption

Federal preemption of State GHG cap-and-trade programs should be permanent (not limited to the years 2012 – 2017 as now provided in H.R. 2454) with appropriate credit provided for actions taken under those programs. State GHG regulatory programs should be preempted as well, consistent with the provisions exempting GHGs from federal regulatory programs.



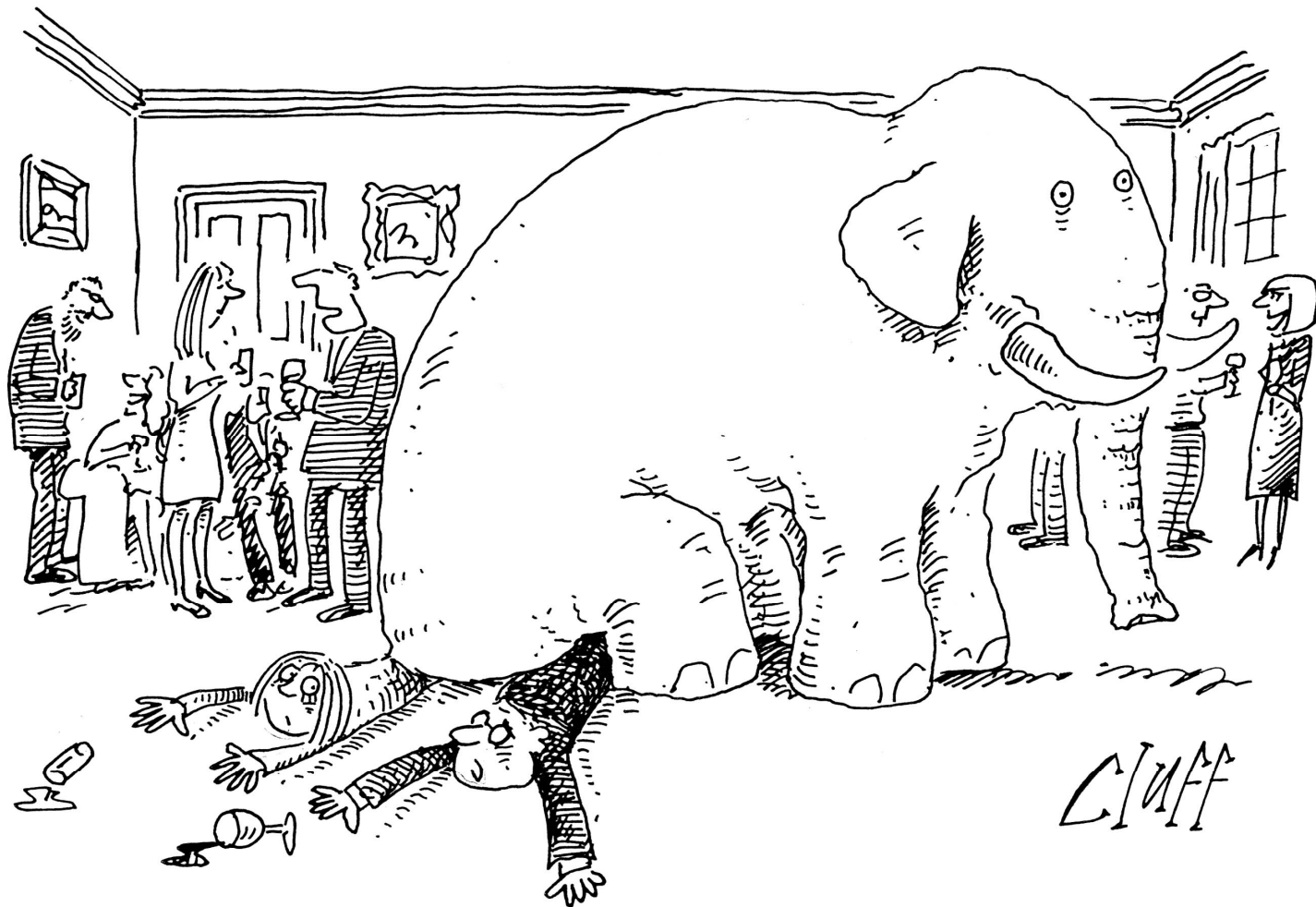
Interaction with EPA Clean Air Act Authority

H.R. 2454 - Climate

- Prohibits EPA regulation of GHGs as criteria pollutants (no NAAQS)
- Prohibits EPA regulation of GHGs as HAPS (no MACT)
- Prohibits EPA using NSR/PSD for GHGs
- Requires EPA to set NSPS for uncapped stationary sources
- Requires EPA to regulate certain mobile sources
- Requires EPA to regulate new coal-fired utilities & CCS storage sites

S. 1733 - Climate

- No Clean Air Act preemption



"HAVE YOU NOTICED IT, TOO?"



H.R. 2454 Cost Estimates by Government Agencies

CBO

\$175 per year (2010 \$) per household

EPA

\$80-111 per year (2005 \$) per household

EIA

GDP \$566 billion less between 2012 - 2030



Possible Next Steps Toward Legislation

- CBO cost estimates for S. 1733 expected soon
- Senate Environment Committee hearings starting Oct. 27th plus 5 others may hold hearings, report a bill
- Primary or composite bill goes to the Senate floor for debate and consideration
- Senate-passed bill and H.R. 2454 must be reconciled in conference
- Reconciled bill goes to both House and Senate for passage (conference report)
- If passed by both, bill goes to the President for signature.



Outlook for Passage of Legislation in 111th Congress

- Healthcare legislation factor
- Cap-and-trade, carbon tax or hybrid?
- Energy legislation only now
- Copenhagen challenge
- *Kerry-Graham bill?*
- “Path to 60” in Senate
 - full climate and energy leg
 - possible post-Kyoto agreement



Three Avenues for CIBO to Be Prepared

- Legislation
- Regulation
- Litigation



Utopia, Texas



Industry, Texas