

# **Developments in Climate Change Policy**

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SF<sub>6</sub> Emission Reduction Partnership for Electric Power Systems  
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# Overview



- Heightened Interest in Climate Change
- EPA's GHG Mandatory Reporting Rule
- Items to Watch For

# Heightened Interest -New Administration



- **President Obama:** Reduce GHG emissions 80% by 2050
  - On record for support of a Cap and Trade program
  - Re-engage on the international discussions
- **New Team**
  - Carol Browner- WH Coordinator for Energy and Climate
  - Lisa Jackson- EPA
  - Nancy Sutley- CEQ
  - Dr. Stephen Chu- DOE
  - Peter Orszag- OMB
- **Actions to date**
  - EPA to Review California waiver on auto emissions (endangerment issue)
  - DOE to adopt new fuel standards

# Many US Agencies Interested in Climate Change Issue



- Much broader and more complex institutionally than any other environmental issue
- Diverse interests and perspectives, e.g.:
  - Energy use, security, and markets: DOE, FERC, DOD
  - Sectoral agencies: USDA, DOT, DOI
  - Revenue use: Treasury
  - Research agencies: DOE, NASA, NOAA, USGS
  - Impacts: DOI, NOAA
  - International activities: DOS, USAID, DOC, USTR
  - Interagency coordination: CEQ, OMB, OSTP, NSC, NEC, CEA

# Increasing State and Local Activity



- States and regions moving ahead
  - Trading programs (RGGI, WCI, Midwest GHG Accord)
  - Reporting programs (TCR, CCAR, WCI, etc.)
  - California waiver
  - International linkages (ICAP)
- Additional long-term interest in other aspects
  - Land-use and transportation
  - Impacts and adaptation
  - Energy efficiency
  - Linkages to air quality, water quality and supply

# Growing Congressional Activity



- Bills from both House and Senate
- Multiple Committees involved
- Focus on Cap and Trade, but also other policy tools, like:
  - Energy efficiency
  - Renewable Energy
  - R&D
- Coordination is essential with White House
- Climate and energy issues could be linked, with consideration of economic needs

Where will climate fall in the queue?

# Boucher-Dingell Cap and Trade draft (October 7, 2008)



- Establishes economy-wide emissions cap which declines annually
  - 2020: 6% below 2005 levels
  - 2030: 44% below 2005 levels
  - 2050: 80% below 2005 levels
- Covered entities
  - Upstream: Suppliers that produce/import petroleum and coal-based fuel whose combustion would release more than 25,000 tons of CO<sub>2</sub>e/ryear, suppliers of industrial gases (e.g., N<sub>2</sub>O, PFC, SF<sub>6</sub>, NF<sub>3</sub>) that produce/import more than 25,000 tons of CO<sub>2</sub>e/yr, LDCs that deliver more than 460,000 cubic feet of natural gas (later date), HFCs (add to Title VI)
  - Downstream: Facilities “all-in” or that emit/produce more than 25,000 tons of CO<sub>2</sub>e per year
- Allowance allocation
  - Allowances allocated to industry, electricity generators, energy efficiency programs, clean technology deployment, low income consumers and other programs
    - Allowances given to programs are auctioned with proceeds benefiting those programs
    - 4 options still on the table with varying generosity toward industry
  - 2-3% of credits shall be distributed for qualified early actions
  - Allowances distributed for holders of permits from the state of California or RGGI
- Offsets and international credits
  - Up to 5% credit for domestic and international offset programs from 2013-2017.
  - Increases to 15% 2018-2020, 30% 2021-2024 and 35% from 2025 on.

## **EPA Analysis - Lieberman-Warner (Mar 08)**



- Total U.S. GHG emissions are approximately 40% lower (~ 3,749 MtCO<sub>2</sub>e) than reference case in 2030 and 56% lower (~ 6,030 MtCO<sub>2</sub>e) in 2050.
- Modeled allowance prices range between \$61 - 83/tCO<sub>2</sub>e in 2030, and \$159 - 220/tCO<sub>2</sub>e in 2050
- The greatest emission abatement occurs in the electricity sector.
- Sensitive to enabling technologies
  - Carbon capture and storage
  - Nuclear power
- The transportation sector provides a relatively small proportion of reductions
- Offsets lower costs
  
- Full analyses of Lieberman-Warner and other bills online at:  
[www.epa.gov/climatechange/economics/economicanalyses.html#EPA](http://www.epa.gov/climatechange/economics/economicanalyses.html#EPA)



# Lieberman-Warner Cap and Trade bill with Boxer amendment (S. 3036) (May 20, 2008)



- Establishes an economy-wide emissions cap, declining annually
  - 2020: 22% below 2005 levels
  - 2030: 40% below 2005 levels
  - 2050: 70% below 2005 levels
- Covered entities
  - Upstream: Facilities that refine/import petroleum products or produce/import natural gas or GHGs with a high global warming potential
  - Downstream: Facilities that use more than 5,000 tons of coal per year
- Allowance allocation
  - Allowances allocated by EPA, auctioned by the Climate Change Credit Corporation
    - Percentage auctioned increases every year from 21.5% in 2012 to 69.5% in 2036.
    - Up to 5% of credits may be distributed for qualified early actions
- Offsets and international credits
  - Up to 30% credit for domestic and international offsets
- Research/Technology Funding
  - Provides funds for energy technology, restoration of natural ecosystems, energy assistance for low-income consumers, green worker training

# Mandatory GHG Reporting Rule: Appropriations Language



## FY2008 Consolidated Appropriations Act:

- “... not less than \$3,500,000 shall be provided for activities to develop and publish a draft rule not later than 9 months after the date of enactment of this Act, and a final rule not later than 18 months after the date of enactment of this Act, to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy...”

## Accompanying Explanatory Statement:

- The Agency shall "use its existing authority under the Clean Air Act" to develop a mandatory GHG reporting rule. "The Agency is further directed to include in its rule reporting of emissions resulting from upstream production and downstream sources, to the extent that the Administrator deems it appropriate. The Administrator shall determine appropriate thresholds of emissions above which reporting is required, and how frequently reports shall be submitted to EPA. The Administrator shall have discretion to use existing reporting requirements for electric generating units under Section 821 of the Clean Air Act...."

# Mandatory GHG Reporting Rule: Purpose and Scope



- Objective of the Program – to collect comprehensive and accurate data relevant to future policy decisions
- Scope of Coverage
  - Define gases- “...to require mandatory reporting of greenhouse gas emissions”
    - CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, **SF<sub>6</sub>**, other fluorinated gases (NF<sub>3</sub>, HFE)
  - Both upstream and downstream sources-
    - Upstream: fossil fuel and industrial gas suppliers
    - Downstream: direct emitters- large industrial facilities

# Extensive Input Solicited



- Meetings held with approximately 250 different groups, including:
  - Trade Associations: EEI, NRECA, APPA, National Mining Association, American Petroleum Institute, American Iron and Steel Association, Portland Cement Association
  - States and state-based groups: CA, CT, NM, SCAQMD, The Climate Registry, Western Climate Initiative
  - Tribes: Tribal Air Caucus, National Tribal Air Assoc.
  - NGOs: WRI, NRDC
- EPA staff have examined existing and proposed reporting programs,
  - EPA programs: SO<sub>2</sub>/NO<sub>x</sub>, National GHG inventory, Climate Leaders, EPA fuels programs,
  - External programs: 1605b, WRI/WBCSD, TCR, California, WCI, RGGI, EU ETS and industry-specific protocols

# **Mandatory Reporting Rule: Status**



- **Comprehensive draft prepared, covering upstream and downstream sources and a high percentage of national emissions**
- **Status:**
  - Proposed rule needs to go through interagency review
  - Public comment period, with public hearings
- **Implementation**
  - Reporting could begin in 2011 at the earliest, for 2010 emissions
  - Delay in finalization of rule beyond mid-2009 could affect schedule

# Some Items to Watch



- Publication of the GHG MRR
- Legislative Progress on Cap & Trade Point of Regulation
  - Phasing of sectors
  - Allocation v. Auction
  - Treatment of competitiveness/trade issues
  - Treatment of Offsets
- Outcome of petitions and litigation on Clean Air Act issues; follow-up actions to the ANPR

# Contact Information



*Thank you!*

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