## Coal-Fired Generation: Next Steps on the Regulatory Horizon

Presentation for the Council of Industrial Boiler Owners (CIBO) 30<sup>th</sup> Annual Meeting Charleston, South Carolina

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#### **Outline of Discussion**

- What has happened since we last got together in Phoenix in October 2007?
  - Recent D.C. Circuit Court Decisions
    - Clean Air Mercury Rule (CAMR)
    - Clean Air Interstate Rule (CAIR)
  - Status of Industrial Boiler Information Collection Request (ICR)
    - Phase 1 Informational Request
    - Phase 2 Stack Testing Request
  - Recent EPA Actions
    - Advanced Notice of Proposed Rulemaking (ANPR): Regulating Greenhouse Gas Emissions under the Clean Air Act



## Clean Air Mercury Rule (CAMR)

- What has transpired over the past twelve months?
  - D.C. Circuit Court vacated CAMR (3-0) on February 8, 2008
    - Complete vacatur of Section 112(n) Revision Rule
      - Court vacated Section 112(n) Revision Rule because it concluded that EPA had improperly delisted power plants from the 112(c) list for HAP regulations
    - Complete vacatur of CAMR
      - Court vacated CAMR because power plants were returned to the section 112(c) list via vacatur of the Section 112(n) Revision Rule, and thus could not be regulated under section 111
  - D.C. Circuit issued the mandate on CAMR on March 14, 2008, at the request of the litigants
  - D.C. Circuit Court denied EPA and Utility Air Regulatory Group's (UARG) petition for *en banc* rehearing on May 20, 2008
  - UARG filed a petition for writ of certiorari to the U.S. Supreme Court on September 17, 2008
  - U.S. EPA filed a petition for writ of certiorari to the U.S. Supreme Court on October 17, 2008



#### Impacts of the CAMR Vacatur

- First-ever program to regulate mercury emissions from coal-fired power plants is no longer in effect or enforceable
- Unless a different outcome is achieved in the courts, EPA must promulgate a facility-specific performance-based standard to reduce HAP emissions from power plants
  - Section 112 Maximum Achievable Control Technology (MACT)
    - Regulations must address all HAP emitted by these sources



 Until such a standard is promulgated and in place, new power plants are subject to case-by-case MACT by the permitting authority to reduce emissions of mercury and other HAP (e.g., acid gases, organics, non-Hg metals, etc.).

## Clean Air Interstate Rule (CAIR)

- What has transpired over the past twelve months?
  - D.C. Circuit Court vacated CAIR (3-0) on July 11,
     2008
  - EPA filed on September 24, 2008, petitioning the D.C. Circuit Court for rehearing en banc



### Impacts of the CAIR Vacatur



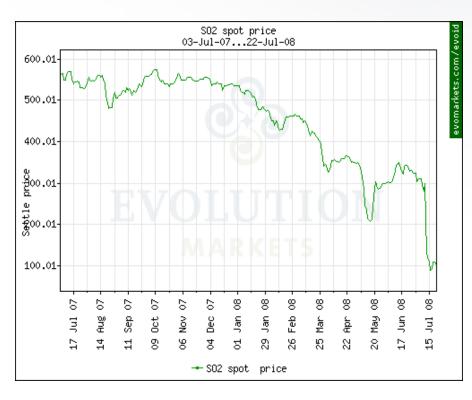
- Future use of interstate cap and trade programs under the Clean Air Act's (CAA) interstate pollution provision is uncertain
- EPA and States will need to reassess State
   Implementation Plans (SIPs) that relied on CAIR to ensure
   that the necessary emissions reductions are achieved in
   order to satisfy existing, ongoing CAA obligations
- Shifting regulatory obligations may cause industry to reevaluate the major pollution control efforts that they have currently undertaken for compliance with CAIR and CAMR

## What are the Nationwide Impacts?

#### **Uncertainties in the Allowance Markets**

#### **SO<sub>2</sub> Allowance Prices**

#### **NOx Allowance Prices**



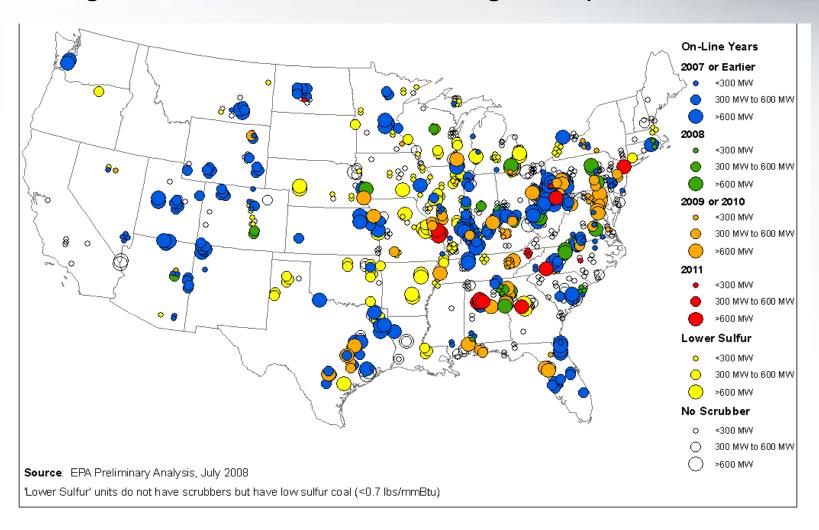


Source: Evolution Markets (http://new.evomarkets.com)

### Investments in Technology



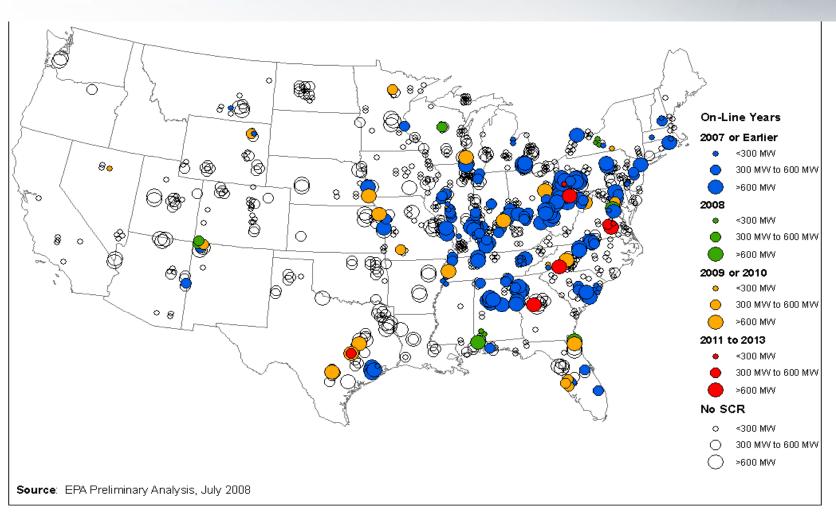
#### Existing and Announced Scrubbers Through 2013 (that EPA is aware of)



## Investments in Technology (cont)



#### **Existing and Announced SCRs Through 2013 (that EPA is aware of)**



#### ICR – Status Update

- Phase 1 Informational Portion of the ICR
  - 3,396 surveys distributed on August 15, 2008
    - Information requested by October 15, 2008
    - As of October 21, 2008 ...
      - 2,090 responses in-house
        - » 1,855 responses completed spreadsheet
        - » 235 responses indicated plant closure, plant sale and/or no applicable combustion units
        - » Summarized data from 1,051 facilities by boiler fuel type and emissions information
  - Bulk of remaining responses expect by October 31, 2008
    - Some extensions granted due Gulf Coast hurricanes and upper Midwest flooding
- Phase 2 Stack Testing Portion of the ICR
  - Requires further interaction with the Office of Management and Budget

## Regulating Greenhouse Gases under the Clean Air Act

- What is EPA's Advanced Notice of Proposed Rulemaking (ANPR)?
  - March 27, 2008 EPA Administrator's letter to Congress announced EPA's first step in responding to the April 2007 U.S. Supreme Court decision (*Massachusetts vs. EPA*)
  - July 11, 2008 ANPR signed by the Administrator
    - ANPR published in the Federal Register on July 29, 2008
      - The ANPR reflects the complexity and magnitude of the question of whether and how greenhouse gases could be effectively controlled under the Clean Air Act; and,
      - Summarizes much of EPA's work to date, and lays out concerns raised by other Federal agencies during their reviews of this work
  - Comment period (120 days) closes on November 28, 2008

## Key Issues for Discussion and Comment in the ANPR



- Addressing greenhouse gas emissions and climate change is a serious and important challenge before the Agency. Thus, the ANPR ...
  - Allows for a broader perspective for dealing with GHGs and climate change
  - Explores many relevant sections of the CAA and implications of possible future regulations of stationary and mobile sources
  - Will serve to inform Congress as it develops climate change legislation
  - Will solicit public input and relevant information regarding
    - The best available science relevant to making an endangerment finding; and,
    - EPA's first responses to mobile source petitions and various stationary source rulemakings

### The GHG ANPR Does NOT:



- Propose or recommend use of any particular Clean Air Act authority
- Make judgments about a preferred pathway
- Regulate any emissions
- Commit to specific next steps

# Stationary Source Authorities and Potential Regulation



- Potential Regulatory Approaches Under CAA
  - CAA Sections 108 -110: National Ambient Air Quality Standards (NAAQS)
  - CAA Section 111: Standards of Performance for New Sources (NSPS)
  - CAA Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAP)
  - CAA Section 129: Special Regulatory Authority for Solid Waste Combustion
- CAA Permit Programs
  - Prevention of Significant Deterioration (PSD)
  - Title V Operating Permits

#### **Conclusions**



- There are several authorities under the CAA that may be applicable to GHGs; each authority provides various degrees of flexibility, but also presents unique challenges
- Decisions in one regulatory context are likely to have implications for other programs
- ANPR should provide the necessary input to allow for an informed, timely decision on the appropriate path(s) forward with regard to regulating greenhouse gas emissions from mobile and stationary sources
- Legislative alternatives/approaches?

