

# Office of Atmospheric Programs Overview for NACAA



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# Overview



- CAIR
  - Implementation of existing programs
  - Replacement rules
  - Legislation
- Climate
  - Endangerment findings
  - GHG Reporting Rule
  - Analysis of Waxman/Markey Bill

# CAIR Implementation



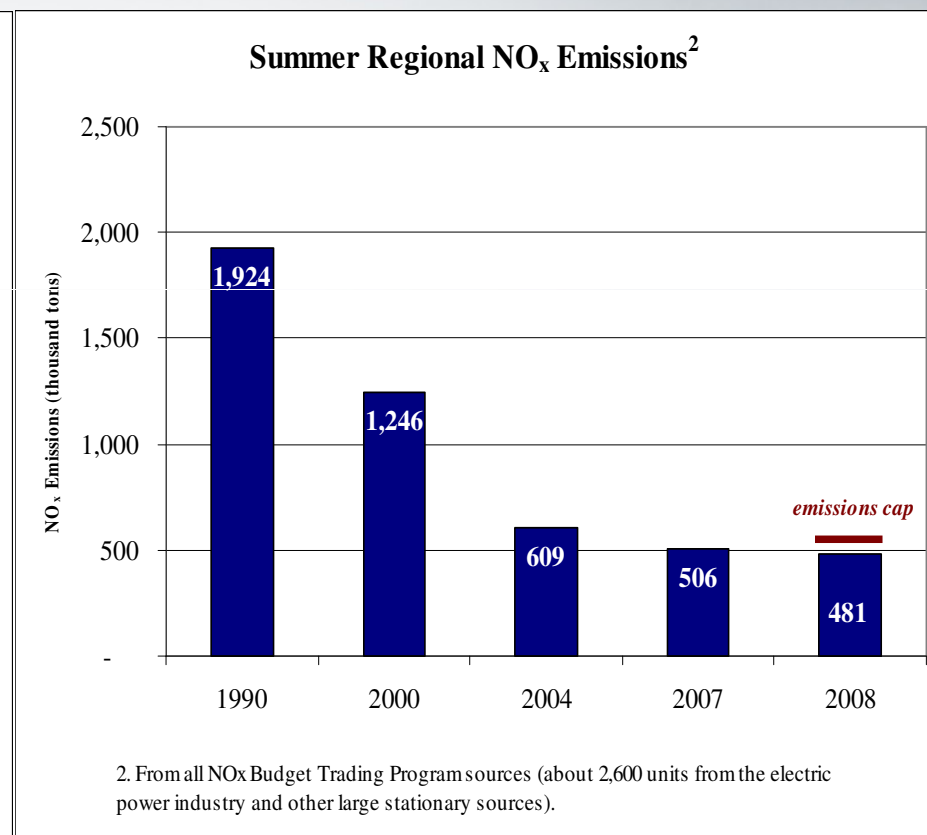
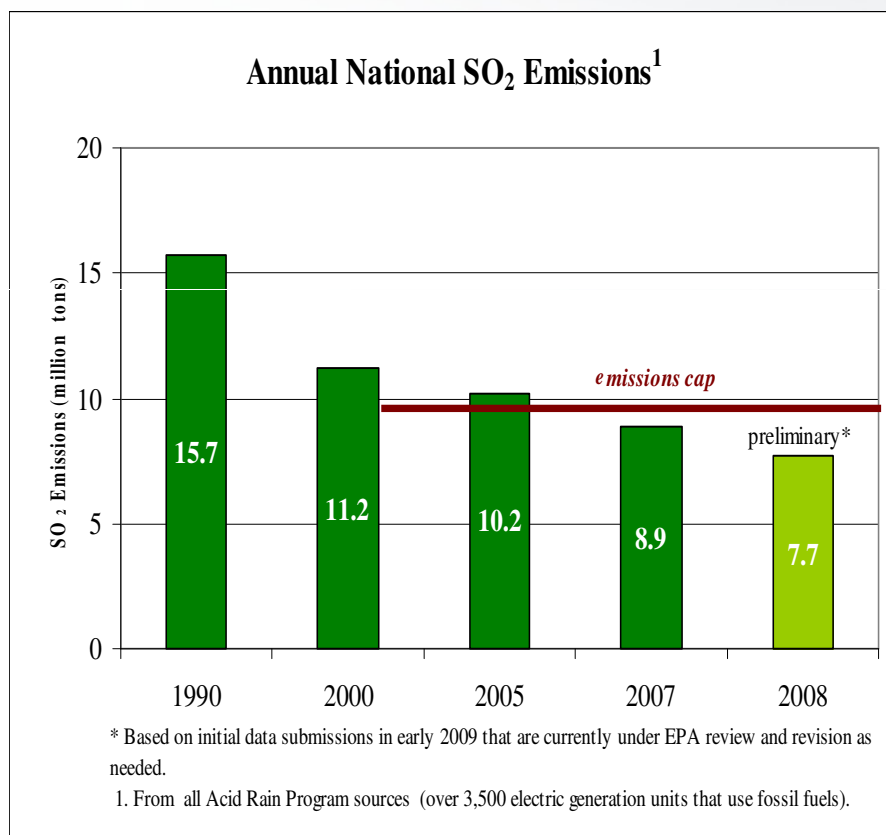
- Court issued remand on December 23, 2008 indicating rules should be implemented while replacement rules are developed
- Annual NO<sub>x</sub> program began January 1, 2009
- Ozone season NO<sub>x</sub> program began May 1, 2009
- Annual SO<sub>2</sub> program will begin on January 1, 2010
- 1<sup>st</sup> quarter emissions reports were received by April 30 (last week)
- We expect smooth implementation and full compliance

# CAIR Replacement Rules



- OAP/CAMD is working with OAQPS to design replacement rules
- Nine listening sessions have been held with States, NGOs, and industry
- We are engaged with the RPOs in thinking through the options
- We have begun laying the analytical basis for evaluating options

# Progress Under Acid Rain Program, NO<sub>x</sub> SIP Call, and CAIR



# CAIR Legislation



- Senators Carper and Alexander held a Roundtable on CAIR on April 23 followed by an announcement that they would seek 3P legislation
- Senator Carper has asked Administrator Jackson and Assistant Administrator nominee Gina McCarthy for assistance with legislation

# Endangerment: Background



- April 2, 2007– In *Massachusetts v. EPA*, the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act
- EPA was required determine whether:
  - GHG emissions from new motor vehicles cause or contribute to air pollution;
  - This air pollution may reasonably be anticipated to endanger public health or welfare; or
  - The science is too uncertain to make a reasoned decision

# Endangerment Findings



- April 17, 2009 – Administrator signed a proposal with two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act
  - **Proposed Endangerment Finding:** Current and projected concentrations of the mix of six key greenhouse in the atmosphere threaten the public health and welfare
  - **Cause or Contribute Finding:** Combined emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs from new motor vehicles contribute to the atmospheric concentrations of these key greenhouse gases and hence to the threat of climate change



# Endangerment: Next Steps



- 60 day public comment period from date of publication in FR (April 24-June 23)
  - Over 400 pre-publication comments received
- Two public hearings scheduled
  - May 18, 2009—Arlington, VA
  - May 21—Seattle, WA
- General Information and FAQs available on website at: <http://epa.gov/climatechange/endangerment.html>
- Communications materials available to EPA Regions (Contact Erin Birgfeld, 202-343-9079, for more information)

# Mandatory Reporting Rule: Status



- Required by FY08 Appropriations Act – Dec. 26, 2007
  - Proposal due Sept. 26, 2008
  - Final due June 26, 2009
- Preamble and rule draft submitted to OMB Oct. 24, 2008
- Package withdrawn Jan. 26, 2009 per regulatory review memos and re-submitted Feb. 11, 2009
- Proposal signed March 10, 2009; published in Federal Register April 10, 2009

# GHG Reporting Rule: Next Steps



- 60-day public comment period (closes June 9, 2009)
  - Held 2 public hearings: Alexandria, VA & Sacramento, CA
  - General & source-specific information available on MRR website:  
<http://epa.gov/climatechange/emissions/ghgrulemaking.html>
- Working toward issuing final rule in late 2009, so 2010 data can be reported in 2011

# GHG Reporting Rule: Requirements



- Rule applies to:
  - Direct emitters of greenhouse gases with emissions generally equal or greater to 25,000 metric tons/year (equivalent to 131 rail cars' worth of coal, or average annual energy use of 2,200 homes)
  - Suppliers of fossil fuels & industrial chemicals
  - Manufacturers of motor vehicles and engines
- Covers 85%-90% of total U.S. GHG emissions
- Excludes most small businesses and governments
- Reporting at the facility level

# Source Categories Covered



Sector	Reporters
<b>Electricity Generation</b>	Power plants
<b>Transportation</b>	Vehicle and Engine Manufacturers
<b>Industrial</b>	All large industrial emitters, including those in the following industries:
<i>Metals</i>	Iron and Steel, Aluminum, Magnesium, Ferroalloy, Zinc, and Lead
<i>Minerals</i>	Cement, Lime, Glass, Silicon Carbide, Pulp and Paper
<i>Chemicals</i>	HCFC-22, Ammonia, Nitric Acid, Adipic Acid, SF6 from Electrical Equipment, Hydrogen, Petrochemicals, Titanium Dioxide, Soda Ash, Phosphoric Acid, Electronics, Titanium Dioxide
<i>Oil and Gas</i>	Components of oil and gas systems (e.g., Refineries), Underground coal mining
<b>Other</b>	Landfills, Wastewater Treatment, Ethanol, Food Processing
<b>Agriculture</b>	Manure Management
<b>Upstream Suppliers*</b>	Petroleum Refineries, Gas Processors, Natural Gas Distribution Companies, Coal Mines, LNG Terminals, Importers, Industrial Gases (e.g., HFCs, N <sub>2</sub> O, PFCs, CO <sub>2</sub> )

\*Some upstream suppliers will also be reporting their direct emissions (e.g., refineries)

# EPA Analysis of Waxman-Markey Bill



- Discussion draft introduced March 31, 2009
- If enacted, the bill would:
  - Advance energy efficiency and reduce reliance on oil
  - Create an economy-wide cap and trade program
  - Stimulate innovation in clean coal technology
  - Accelerate use of renewable energy sources
  - Create strong demand for clean energy technologies and assist economic recovery and job growth
- At request of bill sponsors, EPA's economic analysis of the bill was issued April 21<sup>st</sup>
  - Analysis focused on cap and trade provisions due to time limitations
  - Projections of emissions and energy demand based on AEO 2009 (December 2008) and do not include the stimulus law

# Major Findings



- The Waxman-Markey Discussion Draft transforms the structure of energy production and consumption, moving the U.S. to a clean energy economy.
- Allowance prices are less than previous EPA analyses of Senate cap and trade bills, ranging from \$13 to \$17 per metric ton CO<sub>2</sub> equivalents (tCO<sub>2</sub>e) in 2015 and from \$17 to \$22/tCO<sub>2</sub>e in 2020 in the core scenario.
- Offsets have a strong impact on cost containment.
  - The capped sector uses all of international offsets allowed in all years of the policy (1.25 billion tCO<sub>2</sub>e offsetting 1 billion tCO<sub>2</sub>e of capped sector emissions annually).
  - The 1 billion tCO<sub>2</sub>e annual limit on domestic offsets is never reached due to limited mitigation potential.



# Major Findings (cont.)



- The cap & trade policy would have a relatively modest impact on U.S. consumers, assuming the bulk of revenues from the program are returned to households.
  - Household consumption under the WM Draft scenario increases by 9-10% percent between 2010 and 2015 and 18-19% between 2010 and 2020.
- For the duration of the policy, average annual household consumption is estimated to decline in a range of \$98 to \$140 dollars per year\* (0.1 to 0.2 percent) relative to reference scenario.
  - Costs include the effects of higher energy prices, price changes for other goods and services, impacts on wages and returns to capital.
  - Cost estimates also reflect the value of emissions allowances returned lump sum to households which offsets much of the cap & trade program's effect on household consumption.
- While this analysis contains a set of scenarios that cover some of the important uncertainties when modeling the economic impacts of a comprehensive climate policy, there are still remaining uncertainties that could significantly affect the results.

\*Annual net present value cost per household (discount rate = 5%) averaged over 2010-2050