

Clean Air Act Advisory Committee Meeting: CAIR Update

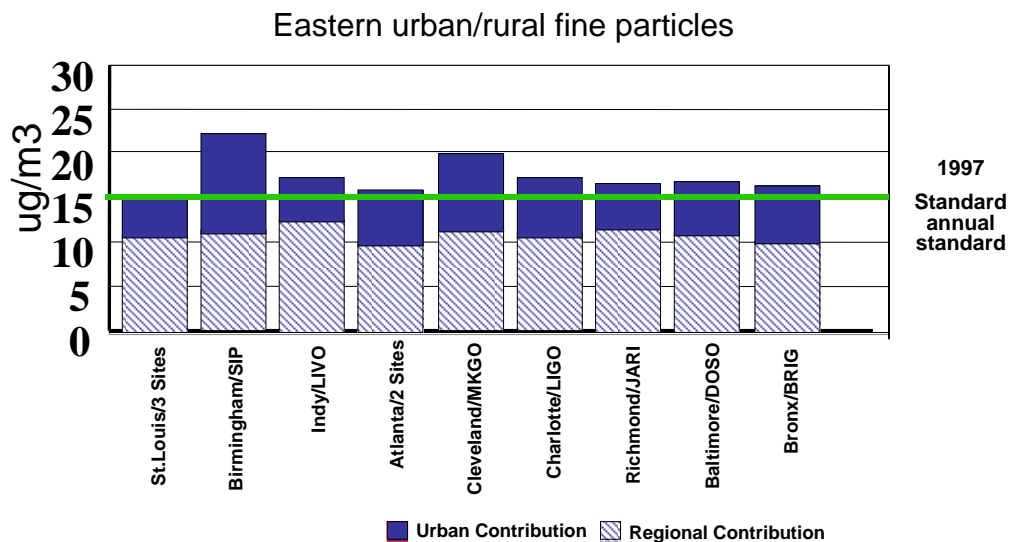
Brian McLean, Director
Office of Atmospheric Programs
Bill Harnett, Director
Air Quality Policy Division
U.S. Environmental Protection Agency
September 18, 2008

Overview

- CAIR and the Court Decision
- Impacts and Consequences
- Options for Action
 - Legal
 - Legislative
 - Regulatory

What Is the Clean Air Interstate Rule (CAIR)?

- CAIR is EPA's strategy to reduce interstate transport of emissions contributing to nonattainment of National Ambient Air Quality Standards (NAAQS) for fine particles (PM_{2.5}) and ozone in the eastern U.S.
- Uses an optional set of 3 interstate trading programs to achieve highly cost-effective emission reductions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x)



12-month average PM_{2.5} mass from speciation samplers

Reference: 2002 EPA Trends Report

http://www.epa.gov/air/airtrends/chem_spec_of_pm2.5_b.pdf

- **Not intended to be an air quality panacea**, but a valuable aid to state-led efforts to attain the NAAQS, as well as reduce acid rain and regional haze
- EPA successfully addressed a similar ozone problem in the 1990s by developing the NO_x Budget Trading Program under the NO_x SIP Call

July 11, 2008 – CAIR Court Decision

- EPA was sued by a few parties on various aspects of CAIR following promulgation in 2005
- The Court issued its decision* on July 11, 2008
 - Opinion was mixed: ruled for CAIR in some instances and against it in others
 - Overall the decision vacated the entire rule and the FIP

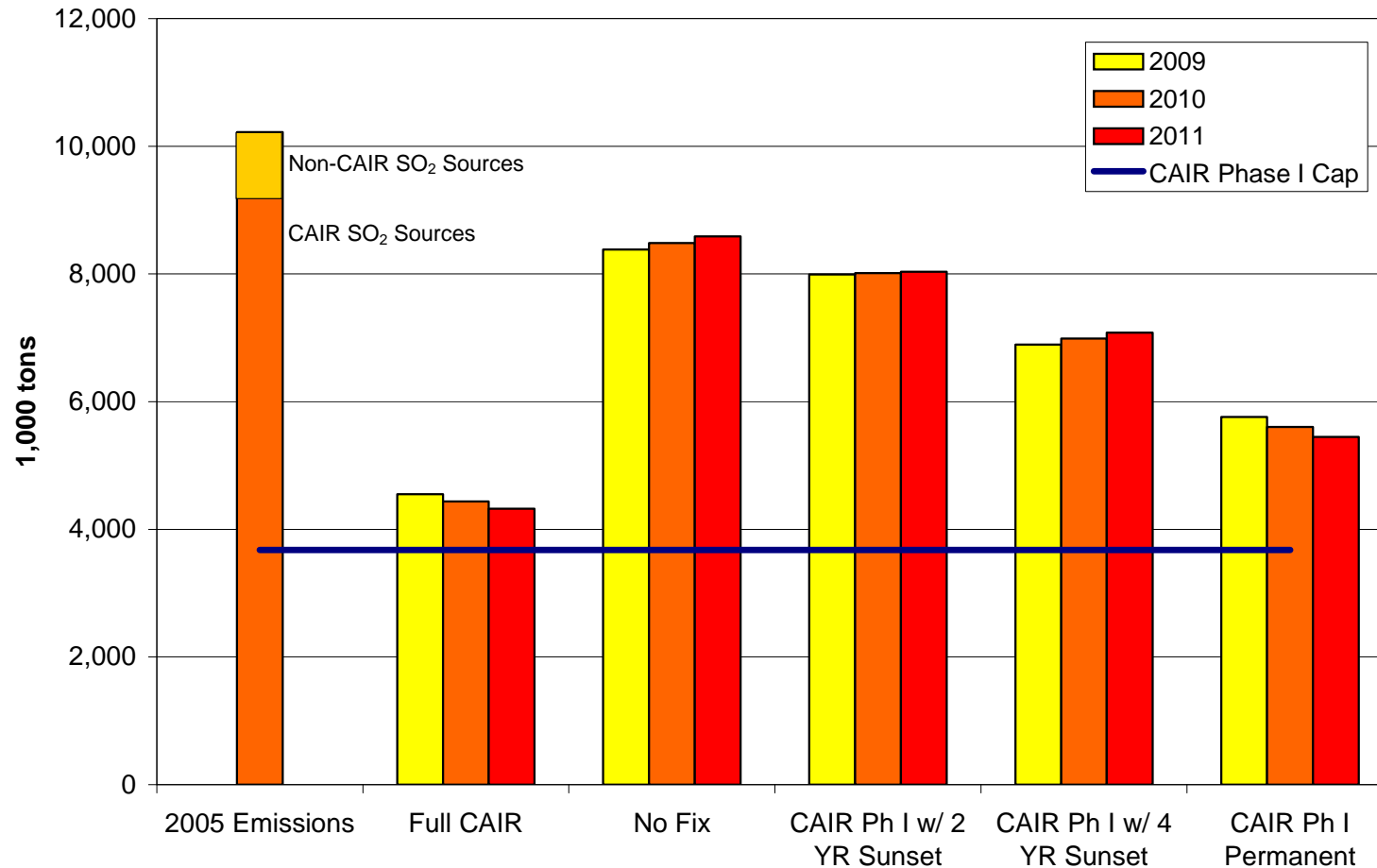
*summary of Court decision in Appendix

What Are the Consequences of the Court's Decision?

- Disruption/delay of industry plans for installation and operation of pollution abatement equipment
- Lost health and environmental benefits
- Increased administrative costs to government and industry
- Questions of future cap and trade program viability

SO₂ Emissions from the Power Sector in the Short-term (2009-2011)*

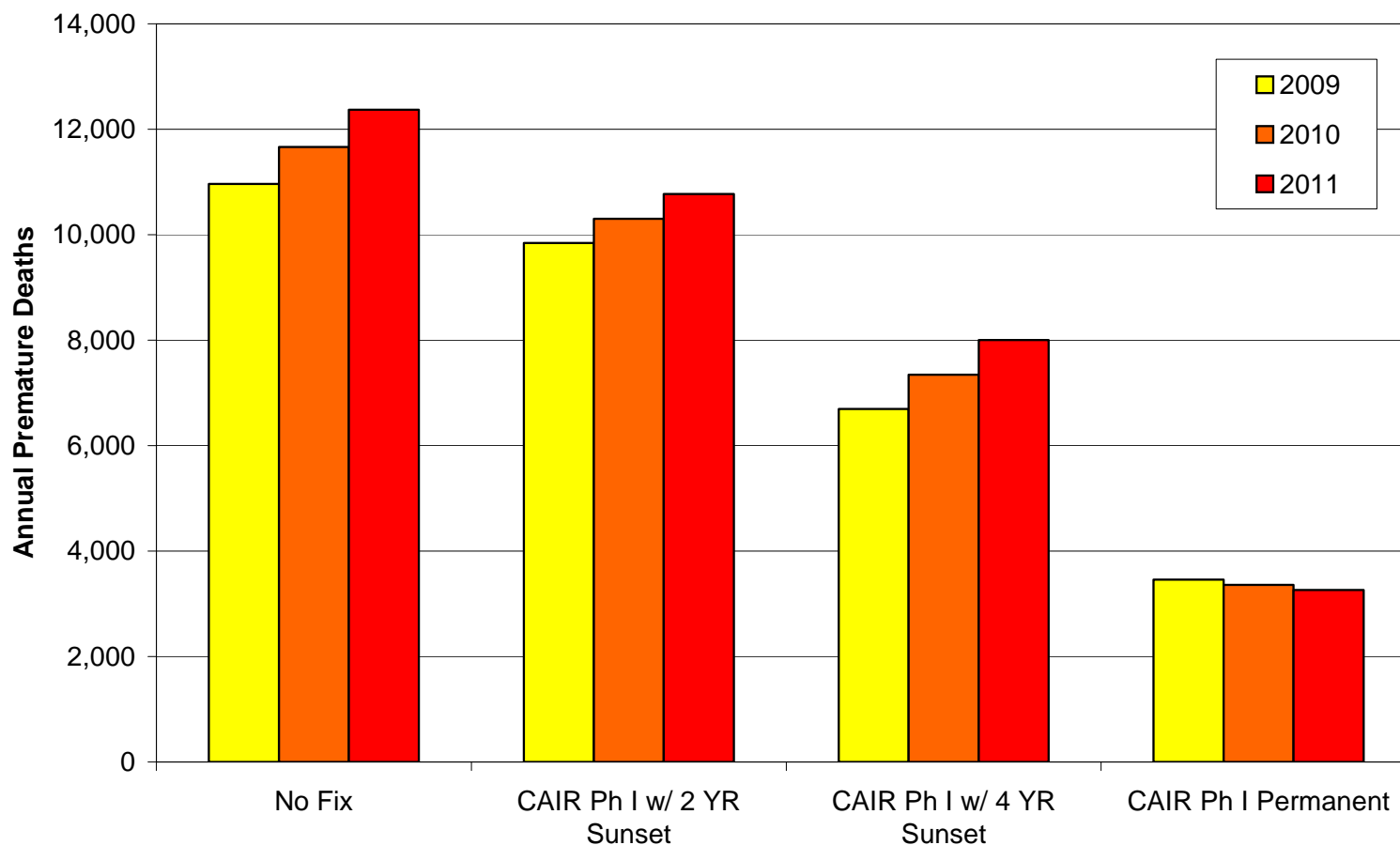
Potential Annual SO₂ Emissions under Various
Quick Fix Options in 2009-2011 for the CAIR Region*



* This chart considers forecasted emissions from full CAIR and various quick fix alternatives. It does not factor in independent actions from States or industry to provide added controls without other direct federal requirements. For subsequent years, Clean Air Act requirements could be expected to result in new control measures needed to attain the current NAAQS and implement the more stringent 2006 NAAQS for PM_{2.5} and ozone.

Benefits Relative to CAIR in the Short-term (2009-2011)*

Potential Annual Premature Deaths for Various Quick Fix Options in 2009-2011 for the CAIR Region*



*This chart considers forecasted emissions from full CAIR and various quick fix alternatives. It does not factor in independent actions from States or industry to provide added controls without other direct federal requirements. For subsequent years, Clean Air Act requirements could be expected to result in new control measures needed to attain the current NAAQS and implement the more stringent 2006 NAAQS for PM2.5 and ozone.

Impacts on State Planning

- Attaining and maintaining National Ambient Air Quality Standards (NAAQS) for ozone and fine particles
 - Attainment demonstrations that relied on CAIR
 - Reasonably Achievable Control Technology determinations where CAIR controls were presumed to be RACT
 - Adequacy review for motor vehicle emission budgets
 - Maintenance plans relying on CAIR for redesignation to attainment
 - 1997 Ozone and PM_{2.5} SIPs
- Regional Haze
 - Best Available Retrofit Technology (BART) determinations and reasonable progress plans relying on CAIR
 - Regional Haze SIPs
- The Court decision did not consider or affect states' obligations to eliminate significant contribution to downwind states' ozone and fine particle pollution

Decisions Needed

- How will we deal with SIP approvability issues?
- Do we proceed with findings of failure to submit for Regional Haze and PM?
- How do we deal with “clocks” for findings for ozone and Section 110(a)(2)(d)(i)?

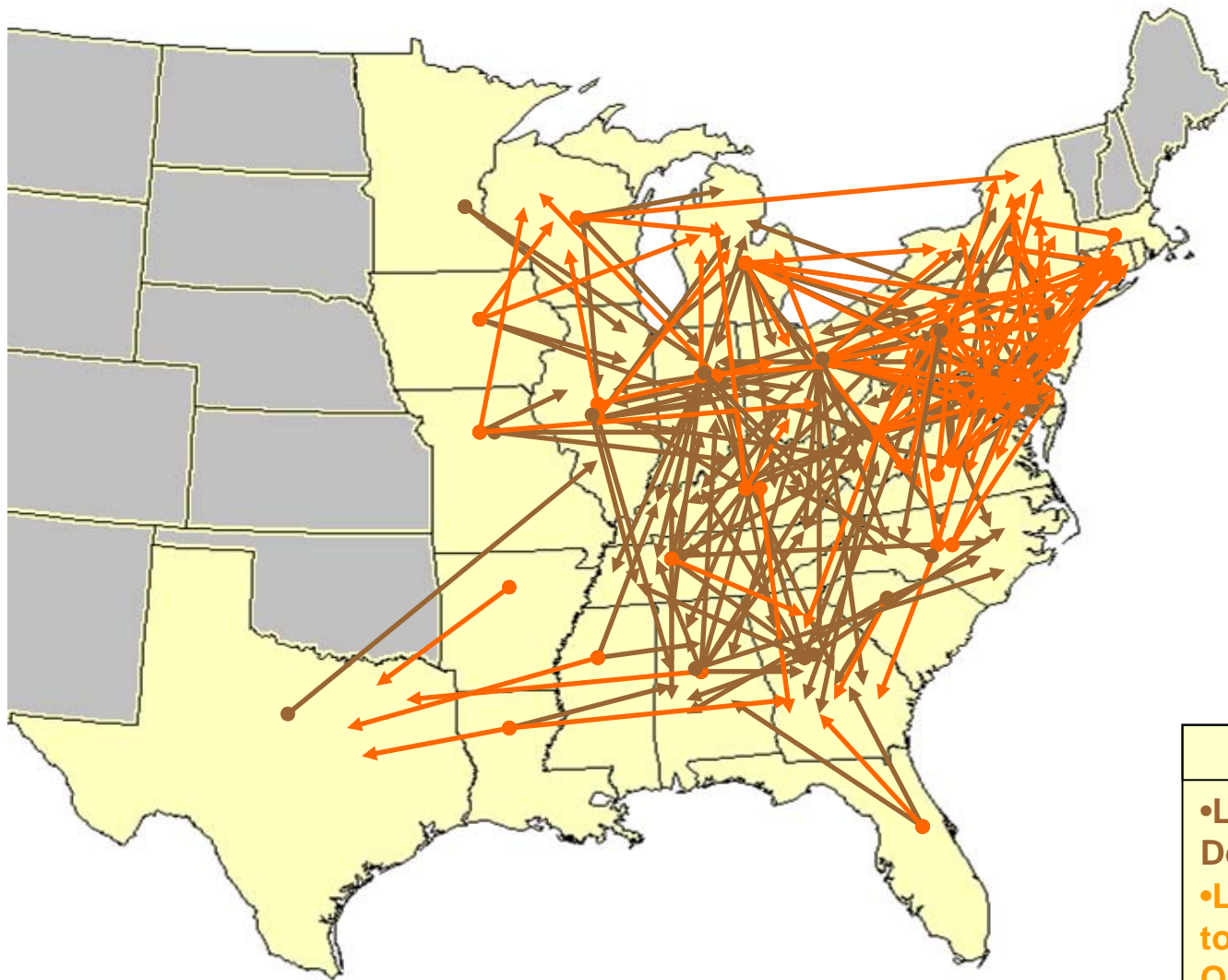
Regional Haze SIPs Submitted or on the Way

- There are 26 CAIR-affected states covered under the regional haze program (Arkansas, Connecticut, and Massachusetts are subject to CAIR for ozone-only, which is not regulated by the haze rule)
- 20 CAIR-affected states for PM_{2.5} planned to rely on CAIR reductions to satisfy BART
- 23 CAIR states for PM_{2.5} planned to rely on CAIR in either setting Reasonable Progress Goals or, in those states without Class I areas, in assuming emission reductions due to CAIR when analyzing impacts on Class I states
- Summary of CAIR states' SIP submissions:
 - 6 final SIPs submitted
 - 12 SIPs in public review process
 - All but 4 CAIR states/DC planning to submit SIPs by end of '08

PM and Ozone SIPs Submitted or on the Way

- There are 26 CAIR states or states impacted by CAIR that have submitted or will be submitting 8-hr ozone and/or PM_{2.5} SIPs for their nonattainment areas
- There are 30 8-hr ozone SIPs due and 54 PM_{2.5} area SIPs due
- Each of the 26 states planned to rely on CAIR for considerations such as determining the attainment date, determining what if any additional controls to adopt, and reliance on CAIR modeling in the attainment demonstration
- 16 of the 26 states planned to rely on the presumption that CAIR=RACT for NO_x and/or SO₂ for EGUs in the CAIR region

A Picture Speaks a Thousand Words



Upwind/downwind issues are not transparent

State demonstrations will need to show individual source contributions

Key to Arrows

- Linkage of Upwind to Downwind for PM2.5
- Linkage of Upwind to Downwind for Ozone

Do We Proceed with Findings of Failure to Submit for Regional Haze and PM?

- Preliminary decision has been made to issue findings of failure to submit for late regional haze SIPs on October 3, 2008
- Preliminary decision to issue findings for PM SIPs in same timeframe

How Do We Deal with “Clocks” for Findings for Ozone and 110(a)(2)(d)(i)?

- Findings for ozone were issued in March, 2008, which started a 2-year FIP/sanction clock
- Findings for 110(a)(2)(d)(i) were issued with CAIR FIP in 2006; 2-year FIP clock has expired

Long-term Issue: Future of Emissions Trading and SIPs

- In resolving interstate transport issues under Section 110 and 126, what is the role for emissions trading? Interstate? Intrastate?
- Emissions trading has been an extremely effective tool at reducing regional emissions and ambient concentrations of pollutants at lower costs (Title IV and NO_x Budget Trading Program)
- Emission caps address new and existing sources

Some Other Affected Rules and Activities

- Clean Air Act Section 126 Petitions
 - EPA denied North Carolina's 126 petition in June 2007
 - Denial relied on promulgation of the CAIR FIP which would control interstate transport in all jurisdictions covered by CAIR, including the upwind states linked to NC
- Federal implementation plan to address interstate transport for ozone and fine particle pollution in the CAIR region
 - The court decision vacated the CAIR FIP, however EPA's statutory duties with regard to findings of failure to submit are not affected
- International Agreements

Options for Action: Legal

- Federal government is reviewing basis for rehearing and will make a decision by September 24 regarding a request for rehearing
- Nature and timing of Court response are uncertain

Options for Action: Legislative

- Senate hearing on July 29 and roundtable on Sept. 11
- Both the Senate and the House are producing proposals to reinstate CAIR, from a few years to “full CAIR”
- Administration has been involved
- Congress in session until Sept. 26 (target)
 - Level of interest is encouraging
 - Great uncertainty
 - Opposition of any single member, especially in the Senate, could be enough to block action
 - Hope remains

Options for Action: Regulatory

- EPA is assessing options to retain CAIR reductions should Congress not enact legislation and Court issues mandate
- Regulatory response (by EPA and states) will require several years, probably entail litigation, and continue uncertainty
- In the absence of legislation, multiple section 126 petitions likely to be submitted by states
 - Time would be needed for modeling, federal and state regulatory actions, and compliance
- EPA is taking steps to be ready for its role in administering the NBP in 2009 if and when the Court issues mandate
 - Agency encouraged states to examine options to ensure NBP is in place by 2009 (Meyers, 9-2-08)
- Substance and timing of state actions to address NAAQS and Regional Haze will be impacted by response to interstate transport

Conclusion

- We face a serious situation with consequences across the board: lost human health and environmental benefits, increased burdens on states, costs to business and industry
- Resolution will involve all three branches of government
- Goal is reducing health and environmental impacts
- Absent a legislative “fix”, restoration of benefits will take years and require significant new efforts by states, EPA, and industry
- Outcome is uncertain

APPENDIX

What the Court Decided

- The Court upheld several aspects of the CAIR rule relating to EPA's methodology in determining which states should be affected and the 2009 Phase I NO_x deadline.
- The Court found six problems:
 - CAIR trading programs are flawed because the region wide focus on emission reductions did not factor in each state's contribution to air pollution issues
 - EPA did not give independent significance to the “interfere with maintenance language” in section 110(a)(2)(D) and thus did not provide enough protection to downwind areas
 - The 2015 compliance date for Phase 2 of CAIR is inconsistent with downwind states' 2010 attainment deadlines for PM_{2.5} and ozone NAAQS

What the Court Decided, *cont.*

- Both SO₂ and NO_x budgets (i.e., the allowances states were given in their trading programs) were not based on the objectives of section 110(a)(2)(D) and were thus invalid
- EPA lacked authority to remove Title IV (Acid Rain Program) allowances through CAIR, or change the amount of SO₂ emissions that an allowance permits
- EPA did not properly address certain claims of measurement errors raised by Minnesota regarding its contributions to NO_x and SO₂ emissions