On July 11, 2008, the U.S. Court of Appeals for the District of Columbia issued a unanimous decision vacating the entire Clean Air Interstate Rule (CAIR) and the associated federal implementation plan.¹ The upset of this program to reduce power plant sulfur dioxide (SO₂) and nitrogen oxides (NOₓ) emissions in the eastern United States was a great surprise, creating operational and planning turmoil in the industry.

Where Does this Leave the Power Sector?
Independent of CAIR, the electric power sector has already reduced annual emissions of both SO₂ and NOₓ by 50%, due to programs to address acid rain and ozone.² CAIR would have boosted those reductions to 70–80% in the eastern United States. The U.S. Environmental Protection Agency (EPA) projected that with CAIR in 2020 approximately 70% of current coal-based capacity would have advanced SO₂ controls (e.g., flue gas desulfurization, also called scrubbers) and 60% would have advanced NOₓ controls (e.g., selective catalytic reduction [SCR]).³ EPA has estimated the power industry would invest $41 billion dollars to comply with CAIR over the period 2007–2025 (in 1999 U.S. dollars).⁴

Because large reduction requirements in CAIR would start in 2009 for NOₓ and 2010 for SO₂, and companies could “bank” credits from early reductions, a large number of emission control projects were already complete or underway, at a cumulative cost of billions of dollars, when the court decision was announced. While utility companies want to be good stewards of the environment, companies are now wondering what will happen to these investments. In states where power companies are regulated, will utility commissions now allow for cost recovery of these large capital expenditures and ongoing operating

The CAIR Vacatur Raises Uncertainty in the Power Generation Industry
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expenses to run the equipment that was installed in good faith to comply with the CAIR requirements? If cost recovery is not allowed, will company shareholders have to absorb the costs and will there be an impact on company financial creditworthiness? In unregulated states, in the absence of other requirements, will companies finish construction projects or continue to operate controls that would raise expenses? This is especially important related to operation of NO\textsubscript{x} controls for CAIR’s annual NO\textsubscript{x} reduction requirements that were to start January 1, 2009. Companies are now wondering if they should commit to the needed maintenance on SCRs and order ammonia to allow operation of SCRs starting January 1, 2009.

**Can Emissions Trading Survive After the CAIR Decision?**

Many power companies had compliance plans that relied on phasing in the installation of pollution control equipment on their largest units and using the emissions trading program to reach compliance during the early years of the program. In light of the court ruling on trading—that is, that interstate trading is not consistent with a state’s need to address its significant contribution to nonattainment of the ozone or particulate matter National Ambient Air Quality Standards (NAAQS) in another state—several questions arise.

- Will interstate emissions trading be allowed and, if so, to what extent?
- If state-specific rules replace CAIR, will they, or can they, allow companies the equivalent operational flexibility as provided by a large trading program?
- Will states go through the administrative effort to establish smaller regional NO\textsubscript{x} trading programs or allow multilateral agreements on trading?
- Can companies with facilities in multiple states trade among their own facilities?
- Can states allow credit for emissions reductions outside nonattainment areas?
- How would state SO\textsubscript{2} programs treat Title IV allowance use, and will states try to restrict the transfer of Title IV allowances between states or facilities?
- While ozone season interstate trades would still be allowed under the NO\textsubscript{x} SIP Call, could any new annual NO\textsubscript{x} reduction requirement be satisfied with NO\textsubscript{x} reduction credits from another state?

Another predicament created with the vacatur of CAIR relates to the SO\textsubscript{2} and NO\textsubscript{x} allowance transactions that took place before the CAIR decision. Various companies traded SO\textsubscript{2} and NO\textsubscript{x} allowances in anticipation of CAIR. What are the legal and financial ramifications of those transactions now, and will they have a material affect on company financial statements?

**Additional Uncertainties Resulting from the Court Decision**

If EPA or states develop new rules governing power plant emissions in the eastern United States, this will take several years to complete. The resulting rules likely will be at least as stringent as the vacated CAIR rules due to the post-CAIR tightening of the ozone and particulate matter NAAQS. New rules may impose different emission reduction requirements, on a different timetable, and perhaps even affect different states. New rules likely will reduce flexibility in two ways: EPA’s ability to use interstate emissions trading may be hampered or eliminated, and EPA’s two-phase approach of emission reductions in 2009–2010 and then again in 2015 may change. The loss of flexibility raises serious questions about whether power companies can meet new requirements to reduce emissions by even greater amounts in a shorter time period. EPA’s new approach to dealing with SO\textsubscript{2} and NO\textsubscript{x} allowance allocations may be controversial and litigated.

In the meantime, many state implementation plans (SIPs) are in limbo. Many states submitted SIPs due in mid-2007, late 2007, and spring 2008 to meet federal ozone, regional haze, and particulate matter requirements, respectively. Many states relied on substantial emissions reductions from CAIR. When and how will states revise their SIPs? A further complication is that individual states may use the Clean Air Act (CAA) Section 126 petition process to ask EPA to force upwind major stationary sources or groups of stationary sources located in other states to reduce emissions. If EPA finds for the petitioner, this could lead to an inflexible mandate to install controls on a lightning-fast timetable.

Besides the direct impacts the court decision has had on how utilities plan to install equipment in the next few years, the ruling has large ramifications for future energy and environmental policy.

- Will Congress adopt legislation that will codify CAIR requirements or even greater reductions?
- Will stricter new rules or laws at the federal and state levels cause switching from coal to natural gas, which will increase natural gas demand and its price for all users?
- Will state-mandated SO\textsubscript{2}, NO\textsubscript{x}, and mercury reductions, in combination with comprehensive federal climate change legislation (or EPA carbon dioxide regulations under the CAA), force older power plants to retire?

Finally, how will the CAIR decision affect several other undecided court cases before the U.S. Court of Appeals: a CAA Section 126 petition from the State of North Carolina (which was denied by EPA due to the existence of CAIR), and determinations of reasonably available control technology (RACT) requirements in SIPs to meet the 1997 ozone and particulate matter standards?

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Next Steps
The vacatur of CAIR affects power companies in various ways. Some companies were petitioners in the case, though none sought vacatur. The court found in favor of some company petitioners. Some companies support a complete reinstatement of CAIR by Congress, while, at the other end of the spectrum, still others support strict, new multipollutant legislation. Despite these differences, the industry's CEOs recognized the overwhelming need for certainty, for the environment, states, and the companies themselves. Thus, the CEOs (while being interested in full CAIR reinstatement but, realizing that objective was unrealistic) expressed support for a full CAIR Phase 1 (2009-2014) reinstatement by Congress.

Also seeking a full CAIR Phase 1 fix were the Environmental Council of the States (ECOS) and many governors, EPA, the Council on Environmental Quality, the Clean Air Act Advisory Committee (an advisory committee to EPA with members from the private sector and states), the American Federation of Labor—Congress of Industrial Organizations (AFL-CIO), and the Institute of Clean Air Companies (control technology equipment vendors). While Congress has not yet taken action, it is possible that this could happen by early 2009.

If a congressional fix is not reached, then EPA, states, power companies, and Congress will continue to work, hopefully together, on both near-term and long-term policies to replace and move beyond CAIR addressing power generator SO2 and NOx emissions.

The court could revise its remedy from vacatur to remand, as requested by EPA, states, and some power companies, keeping CAIR in force while EPA pursues a remand rule to address the court decision, and perhaps changing CAIR substantially. Power company compliance with CAIR would include reducing NOx in 2009 and SO2 in 2010 (but until a replacement CAIR rule survives litigation it would provide quite limited certainty). States would not need to immediately replace CAIR programs or revise SIPs. Similarly, the Court of Appeals and/or Supreme Court could rehear the case, keeping CAIR in force for a year or two, perhaps only delaying a replacement program.

Conclusion
The vacatur of CAIR creates tremendous uncertainty that can only gradually be resolved over the next few years unless Congress steps in and modifies the CAA. There will be more questions than answers for quite some time.

References
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4 Congressional Staff Briefing Clean Air Interstate Rule; U.S. Environmental Protection Agency presentation, July 24, 2008.