Testimony of

Jared Snyder
Assistant Commissioner for Air Resources, Climate Change and Energy
New York State Department of Environmental Conservation
625 Broadway, 14th Floor
Albany, New York 12233-1010

Before the

U.S. Senate Committee on Environment and Public Works
Subcommittee on Clean Air and Nuclear Safety
"EPA's Clean Air Interstate Rule (CAIR):
Recent Court Decision and its Implications"
406 Dirksen Senate Office Building
Tuesday, July 29, 2008, 10:00 AM

My name is Jared Snyder and I am the Assistant Commissioner of the New York State Department of Environmental Conservation for Air Resources, Climate Change and Energy. I am also the current Chair of the Ozone Transport Commission (OTC), a body established by the 1990 amendments to the Clean Air Act to coordinate activities of the twelve states and the District of Columbia that comprise the ozone transport region (OTR). Although I am testifying today on behalf of New York, I can also relate the collective views of the OTC.

I appreciate the opportunity to testify today about the impact of the decision of the U.S. Court of Appeals for the District of Columbia Circuit vacating the Environmental Protection Agency's (EPA) Clean Air Interstate Rule (CAIR). Assuming that it is not reversed on further review, the court's decision will have potentially dramatic repercussions for air pollution management and public health. Many states will now find

it much more difficult, if not impossible, to establish compliance with the national ambient air quality standards (NAAQS) for ozone and fine particulate matter (PM2.5). The vacatur of CAIR also disrupts the efforts of the states to comply with a number of other air quality programs that were dependent, at least in part, on CAIR, such as the implementation of the regional haze rule.

More importantly, this decision means that people living in the eastern United States will have to wait longer for clean air, suffering the continued consequences of breathing air that fails to meet the health-based air quality standards. EPA's own numbers, used to justify the program, now demonstrate in vivid detail the effect of the CAIR vacatur. In adopting CAIR, EPA estimated that there would be 17,000 fewer fatalities annually as a result of the implementation of CAIR. Unless the emission reductions expected from CAIR are restored, therefore, we can expect that an additional 17,000 people will die each year, in addition to the suffering of thousands of people with asthma and other respiratory difficulties.

The State of New York and the other member states of the OTC are committed to taking the steps necessary to restore and strengthen the protection of air quality that was provided by CAIR. Those efforts, including the filing of petitions under Section 126 of the Clean Air Act, are described in more detail below. Recognizing the vagaries of administrative action, and the fact that the states cannot solve this problem themselves, we urge Congress to take prompt action to restore and strengthen the emission

reductions required by CAIR. If expeditious action is taken, it is possible that we can avoid postponing the benefits of cleaner air.

Benefits of CAIR

Most of my testimony will focus on what CAIR did do, what it did not do, and what its demise means for air quality and the states' obligations to comply with Clean Air Act mandates. New York and the OTC have maintained that CAIR did not provide sufficient and timely reductions from the power sector to fully protect public health. Nevertheless, CAIR would have provided a significant amount of reductions in emissions of nitrogen oxides (NOx) and sulfur dioxide (SO_2), which would have resulted in substantial air quality benefits and assisted States in meeting their air quality goals. The vacatur of CAIR has far-reaching impacts on the ability of the states to attain and maintain the health-based ozone and PM2.5 standards (including the recently strengthened ozone and PM2.5 NAAQS), improve lands, lakes and streams still being severely impacted from acid rain, and enhance visibility in our national parks and wilderness areas.

States are currently implementing plans to meet these health-based air quality standards in the 2009 to 2012 time frame in accordance with the Clean Air Act and current regulatory requirements. Many of these plans are now rendered inadequate by the loss of in-state and upwind emission reductions from CAIR that are being relied upon to demonstrate attainment with the ozone and PM2.5 standards. In New York, we are currently in the process of evaluating the changes that must be made in our current ozone and PM2.5 state implementation plans (SIPs) to take account of the court's

decision. Our ozone SIP projects that we will be able to achieve compliance with the ozone standard by 2012, but that assumes the reduction of emissions from out-of-state sources attributable to the implementation of CAIR. In its decision, the court of appeals expressed its view that the 1997 NOx SIP Call would limit the harm to air quality from the vacatur of CAIR. But the truth is much more complicated. The NOx SIP Call was a more limited air pollution transport rule that required NOx reductions in twenty eastern States and the District of Columbia in the five month ozone season only (May through September). The NOx SIP Call has been very successful in reducing emissions and, consequently, ozone levels. As the chart attached as Exhibit A shows, ozone season NOx emissions from the power sector have decreased nearly 60% since 2000 as a result of the NOx SIP Call. At the same time, ozone levels have decreased substantially. In New York, for example, ozone levels decreased 15 % in Chautauqua County (in southwestern New York) and 9.5 % in Babylon, Suffolk County (part of the New York City nonattainment area) over this period. *See* Exhibit B.

The problem with the court of appeals' conclusion that the NOx SIP Call will serve as a backstop is that many states repealed their NOx SIP Call programs when adopting the CAIR program. With the sunset of the NOx SIP Call after the end of this year's ozone season, some states may not be able to put their programs back in place before the start of the next ozone season (May 1, 2009). Although the control technologies are in place to maintain the 60% reduction in NOx emissions that has been realized, a portion of these reductions will be in jeopardy without the CAIR rule in place. We know this because of what we see during the non-ozone season when the NOx SIP

Call does not govern. During that time where control programs are not in place, emissions go up dramatically. *See* Exhibit C (Presentation to the NESCAUM Directors, Discerning Plant NOx Emissions Behavior in the Northeast Using the ETS Dataset by Jeremy Fisher, Ezra Hausman, & Chris James, Synapse Energy and Economics, Inc., January 30, 2008). Without CAIR there is no annual program to mitigate those emissions.

Therefore, the fate of New York's ozone SIP, as well as the SIPs of other OTC states, depends largely on the status of the NOx SIP Call in upwind states. In New York, we will not lose substantial emission reductions from New York sources because we did not repeal the state regulations implementing the NOx SIP Call when we enacted the New York CAIR regulations. However, because of the uncertainty over the status of the NOx SIP call regulations in upwind states, we cannot be sure at this time about the ramifications of the demise of CAIR on our efforts to achieve compliance with the ozone SIP. We are also uncertain about EPA's ability to allocate the NOx SIP Call allowances in a timely manner and to continue to administer the program.

For the PM2.5 SIP, the analysis is clearer. EPA projected that the implementation of CAIR, along with other programs directed at diesel emissions, would result in attainment for all the PM2.5 nonattainment areas in the corridor extending from Washington to the Connecticut suburbs, which includes all the areas projected to be in nonattainment in New York. *See* Exhibit D. Although we are just beginning to analyze the effect of the loss of CAIR, we believe that it will make it much more difficult for many

states to achieve compliance with the PM2.5 NAAQS by the 2010 compliance deadline. Once again, however, New York and states downwind of New York benefit from the New York state regulations predating CAIR that require SO_2 reductions of a magnitude comparable to the first phase of CAIR, and year round NOx reductions that are somewhat lower than those required by CAIR. But because the portion of PM2.5 levels attributable to transported emissions is so high (approximately 75% in New York)[1], the failure to achieve the upwind emission reductions required by CAIR may prevent New York from complying with the PM2.5 NAAQS until those emission reductions are restored.

Much more important than the effect of the court decision on state air quality planning activities is the effect of the decision on public health. By 2015, when the second phase of CAIR commences, EPA projected the following health benefits flowing from the PM2.5 reductions attributable to CAIR: approximately 17,000 fewer premature fatalities, 8,700 fewer cases of chronic bronchitis, 22,000 fewer non-fatal heart attacks, 10,500 fewer hospitalizations for combined respiratory and cardiovascular diseases, 9.9 million fewer cases of respiratory illnesses, and 1.7 million fewer work-loss days. EPA also estimated substantial health improvement for children from reduced upper and lower respiratory illness, acute bronchitis, and asthma attacks. Of the 17,000 lives that would be saved annually by the PM2.5 reductions attributable to CAIR, EPA estimated than 1,500 of those lives saved would be in New York, the same as Ohio. Only

[1] Qin, Y., Kim, E., Hopke, P., 2006. The Concentrations and Sources of PM2.5 in Metropolitan New York City. Atmospheric Environment.

Pennsylvania would realize greater public health benefits from the implementation of CAIR.

Similarly, EPA estimated 2015 ozone related benefits (in the eastern US generally limited to summer season of May to October) to include 2,800 fewer hospital admissions for respiratory illness, 280 fewer emergency room admissions for asthma, 690,000 fewer days with restricted activity levels and 510,000 fewer days of children school absences. Although not part of EPA's benefits analysis, EPA did analyze studies that indicate a relationship between mortality and ozone, which suggest that approximately 500 lives would be saved annually as a result of the ozone reductions attributable to CAIR. EPA estimated the net benefits that it expected from CAIR as between $62.6 – 73.2 billion in 2010 and $86.3 – 101 billion in 2015. Compared to the costs to the power industry of $2.4 billion in 2010 and $3.6 billion in 2015, this means that the benefits of CAIR exceed the costs by a factor of 25:1.

CAIR would also assist the states in achieving compliance with the new ozone and PM standards, promulgated in 2008 and 2006, respectively. States are now beginning to develop plans to comply with the 2008 ozone standard that will have attainment deadlines for states starting in 2013, and the 2006 PM2.5 standard, which will have an attainment deadline of 2014. CAIR would have provided air quality benefits that would likely have resulted in fewer nonattainment areas under these newer and stricter standards. For example, in New York, upstate areas like Buffalo, Rochester, Syracuse and Albany would be expected to meet the new, stricter ozone standard with

the reductions from CAIR. Air quality in rural areas like Jamestown (Chautauqua County), Watertown (Jefferson County) and Essex County (the peak of Whiteface Mountain), currently exceed the new ozone NAAQS largely due to transported air pollution that would have been reduced by CAIR.

Also, there are a few areas of the country -- including New York City, Houston and Los Angeles -- that are still trying to meet the old one hour ozone standard. At this point, these areas have failed to meet their attainment date and are subject to stringent requirements under Section 185 of the Clean Air Act. Section 185 requires major sources in the nonattainment area to pay substantial fees in lieu of reducing local emissions, but does nothing for transported pollution. CAIR or a similar program that limits the influx of ozone and its precursors is needed to assist these areas to deal with that component of nonattainment related to transported pollution.

CAIR would also have substantial benefits for the natural environment. The reduction in NOx and SO_2 emissions will reduce the acid deposition that decimates the lakes and streams in New York's Adirondack park region and other portions of the northeast. EPA's analysis is that CAIR would eliminate chronic acidity in Adirondack Lakes by 2030. *See* Exhibit E. The implementation of CAIR would also reduce the nitrogen deposition to sensitive coastal ecosystems such as Chesapeake Bay and Long Island Sound. CAIR would also improve visibility in our national parks and other natural areas. In fact, EPA rules establish compliance with CAIR as constituting Best Available Retrofit Technology (BART) under the regional haze rule. 70 Fed. Reg. 39137 (July 6,

2005). The vacatur of CAIR means that many states will have to revisit their regional haze requirements.

Shortcomings of CAIR

As important as CAIR is for protecting air quality and the environment, it is equally important to recognize its inadequacies. CAIR did not provide adequate reductions for many of the major metropolitan areas of the Northeast. Nonattainment areas like the New York City metropolitan area, including northern New Jersey and southeastern Connecticut; Philadelphia, including southern New Jersey and parts of Delaware and Maryland; and Baltimore-Washington, DC, including northern Virginia, need more than CAIR to meet their air quality goals. The air entering states in the northeast corridor is often already highly contaminated. An analysis of the monitoring data at the Methodist Hill, Pennsylvania site by the Maryland Department of the Environment shows that approximately 40 parts per billion (ppb), or more than half of the amount of ozone allowed under the new ozone standard, comes from an "elevated reservoir" of ozone that enters the region from upwind states. *See* Exhibit F. For Ocean County, New Jersey and New Haven County, Connecticut, EPA estimates that after implementation of the NOx SIP Call, but not CAIR, 82 and 95% of the ozone in 2010, respectively, will be the result of pollution transported from sources in upwind States.

To close the gap left by CAIR, OTC states controlled other sources and required further controls on power plants. For example, Maryland passed its own Healthy Air Act

to assure additional emission reductions from the power sector and Delaware adopted a multi-pollutant regulation for electricity generators. New York and the other OTC States have implemented many control programs -- including controls on sources of volatile organic compounds (VOCs) like gas cans, consumer products, and autobody refinishing, and NOx controls on smaller sources -- that were more costly to implement than deeper CAIR reductions would have cost on a dollar per ton basis and were not as effective as a more stringent CAIR would have been.

Responding to the Vacatur of CAIR

New York and the other OTC states are committed to taking the steps needed to restore the emission reductions lost as a result of the court of appeals' decision. First, we are urging EPA to move quickly to repromulgate a CAIR-type rule that corrects the shortcomings identified by the court of appeals in its decision. This past Friday, we sent EPA the letter attached as Exhibit G, calling upon EPA to take immediate action to protect air quality by restoring the protections required by the 1997 NOx SIP, which was largely displaced by CAIR, and by taking prompt steps to issue a new comprehensive transport rule that conforms to the court's decision and obtains quicker and steeper emission reductions than would have resulted from CAIR. Second, we are also committed to using the authority the states have under Section 126 of the Act to file petitions seeking the elimination of any emissions that contribute significantly to nonattainment in the downwind state. Section 126 provides a powerful tool for states harmed by transported air pollution to obtain quick relief. Third, we are committed to taking steps to ensure that emissions of our in-state sources are reduced. For example,

New York will continue to enforce the preexisting obligations of power plants to reduce their emissions under the State's acid deposition reduction program (ADRP).

Finally, we are urging Congress to act. We ask Congress to promptly restore the benefits of CAIR that have been lost. But it should not stop there. It should take this opportunity to expedite and strengthen the air quality benefits of CAIR. With regard to ozone, most of the urban areas in the northeast will be unable to meet the ozone standard by 2010, according to EPA's analyses. Accelerating the second phase of CAIR will help us achieve cleaner air that complies with the standard sooner. In any event, EPA has recognized that even lower levels of ozone are needed to protect public health. Expediting the second phase of CAIR is an essential part of the strategy to reduce ozone levels to meet the new lower ozone standard, which we believe is still inadequately protective.

Accelerating the second phase of CAIR will result in dramatic benefit for public health, due to the earlier reduction of fine particulate levels. The health benefits identified above – over ten thousand lives saved annually and thousands of reduced hospitalizations – will not be realized until the second phase of CAIR is implemented in 2015. Implementation of the second phase of CAIR will result in only a few additional areas coming into compliance with the PM2.5 standard, with most of the large, heavily populated areas in the Midwest remaining out of attainment even after that second phase is implemented. *See* Exhibit H.

Likewise, additional reductions in NOx and SO_2 emissions, beyond those required by CAIR, will have substantial benefits for public health and the environment. Working with our colleagues at the Northeast States for Coordinated Air Use Management (NESCAUM), the OTC has calculated the benefits and costs of reducing emissions. Implementation of an additional 20% reduction in NOx and SO_2 emission levels will save 250-300 additional lives annually in the OTR.[2] The benefits should be even greater in the Midwestern states, which, according to EPA's analysis, will include urban areas that remain in noncompliance with the PM2.5 standard even after CAIR is fully implemented. Once again, as with CAIR itself, the benefits of these additional reductions for public health greatly exceed the costs of implementing the additional reductions. The NESCAUM study concludes that the nationwide health benefits of this strategy exceed the costs by a magnitude of over 3 to 1.

In crafting its response to the court of appeals decision, Congress should resist the temptation to extend compliance deadlines. While we acknowledge that the failure of CAIR makes compliance with the ozone and PM NAAQS by the applicable deadlines difficult if not impossible, we believe strongly that the proper response is not to extend the deadlines or weaken the standards, which would do nothing to protect public health. Instead, Congress should ensure that the emission reductions required by CAIR are achieved and the public health benefits of clean air realized.

[2] See www.nescaum.org/topics/exposure-risk-assessment-and-health-effects or www.otcair.org/documents.asp?fview=Report#

Other Power Plant Emissions

When Congress addresses SO_2 and NOx emissions, it should consider addressing the other two primary power plant emissions, mercury and carbon dioxide. The CAIR vacatur comes on the heels of another court of appeals decision striking down EPA's Clean Air Mercury Rule (CAMR), which relied unlawfully on a cap-and-trade program to control this toxic pollutant. We agree that mercury emissions should be addressed through limits applicable to each plant, instead of a cap-and-trade program that provides inadequate protection and allows hot spots of mercury pollution to persist.

Mercury poses a very real threat to public health and the environment throughout in New York and the northeast. Due to the high levels of mercury in freshwater fish, the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) have issued specific warnings advising that pregnant women and children should not consume any servings of specific fish species that are caught in 93 lakes and more than 265 miles of rivers in the State. To address this impact, New York joined with other northeastern States is establishing a total maximum daily load (TMDL) for mercury pollution under the Clean Water Act; this TMDL was approved by EPA in December 2007. Reducing mercury levels in accordance with this TMDL will require substantial reduction from sources of mercury emissions, including power plants. The States are taking steps to achieve the needed reductions. New York requires that coal fired power plants reduce mercury emissions by 50% in 2010 and meet a performance standard (0.6 pounds per trillion Btu) which

will result in a 90% reduction from 1999 levels in 2015. Pennsylvania requires an 80% reduction in 2010 and a 90% reduction in 2015. Several significant upwind States, including Illinois, Michigan and Wisconsin, have implemented mercury reduction strategies for coal fired electric utilities. However, other states with large power plant sources of mercury emissions, such as Ohio, Indiana and West Virginia, followed EPA's lead and relied on CAMR to achieve the needed reductions.

The court of appeals' decision vacating CAMR requires EPA to now do what it was required to do from the outset: promulgate plant-specific emission standards for mercury under Section 112 of the Clean Air Act, which governs hazardous air pollutants. We believe that Section 112 provides a valid and effective framework for reducing power plant mercury emissions. But EPA has yet to respond to the remand of CAMR. Therefore, we would support Congressional enactment of a strong nationwide mercury emission reduction program that requires reductions in mercury emissions of 90% or more from each power plant. In the alternative, Congress could enact legislation placing EPA on a strict schedule to complete the rulemaking and require the implementation of controls in accordance with Section 112 of the Clean Air Act.

Finally, we urge Congress to address the climate implications of the emissions from power plants. Overwhelming scientific evidence demonstrates that climate change threatens New York State's air quality, water quality, marine and freshwater fisheries, salt and freshwater wetlands, surface and subsurface drinking water supplies, river and

stream impoundment infrastructure, forests, and wildlife habitats.[3] The New York climate has already begun migrating south, gradually taking on the characteristics of the climate formerly found in the states south of New York. Climate change will cause more intense and prolonged periods of summertime heat in New York, resulting in increased mortality and heat illnesses, especially among susceptible populations such as children, the elderly and individuals with pre-existing cardiovascular and respiratory disease. Higher temperatures will contribute to conditions that enhance the formation of ground-level ozone.

Climate change will adversely affect New York's 2,625 miles of coastal ecosystems and communities. Accelerated sea level rise due to climate change will increase the frequency and magnitude of flood damage to coastal communities and further stress coastal ecosystems. Climate change will warm coastal waters, altering the species composition of our marine fisheries and impacting local fisheries-based economies. Reduction of cold-water habitat supporting resident trout and salmon populations is expected as temperatures of surface waters increase. Warmer winters will increase pests and diseases that can disrupt crop production and threaten our forests, including those in the Adirondack Park, one the most significant hardwood ecosystems in the world. New York's maple syrup industry is endangered since specific temperature conditions are required in order for the sugar maples to produce sap, as are our dairy farms as milk production is maximized under cooler conditions. Changes in temperature and precipitation trends will make management of New York's public

[3] Frumhoff, P.S., J.J. McCarthy, J.M. Melillo, S.C. Moser, and D.J. Wuebbles. 2007. Confronting Climate Change in the U.S. Northeast: Science, Impacts, and Solutions. Synthesis Report of the Northeast Climate Impacts Assessment (NECIA). Cambridge, MA: Union of Concerned Scientists (UCS).

water supply, including the surface water reservoirs that deliver approximately 1.4 billion gallons of water each day to nearly 9 million people in New York City, much more difficult.

Once again, the states have stepped into this void. New York and many of the other northeastern and mid-Atlantic states joined forces to implement the regional greenhouse gas initiative (RGGI), a first of its kind cap-and-trade program for carbon dioxide emissions. Last week, the RGGI states released the application materials for participation in the nation's first auction of carbon dioxide allowances to be held in September. New York also has one of the nation's most aggressive renewable performance standards, requiring the generation of 25% of the State's electricity from clean, renewable sources of energy by 2025. In addition, New York leads the way with its "15 by 15" program to reduce energy demand 15% by 2015. Other states across the country are implementing similar efforts.

Such state efforts should be preserved, but they are not enough. It is time for the United States to take the lead in enacting a carbon dioxide reduction program that achieves the steep reductions in carbon dioxide emissions that scientists tell us are needed to prevent dangerous human interference with the climate. Any such program should acknowledge the need for a partnership in which all levels of government participate, including the states, and it should expressly preserve state authority to enact programs that reduce emissions of greenhouse gases.

Conclusion

In conclusion, the court of appeals decision has the potential to result in substantially increased air pollution in the eastern United States, with dramatic ramifications for the protection of public health. Congress should act promptly to restore and strengthen the air quality protection provided by CAIR. At the same time, Congress should also use this opportunity to enact a stringent four pollutant control program that addresses the immediate threat posed by NOx, SO_2 and mercury emissions and achieves climate protection goals.