GAINESVILLE REGIONAL UTILITIES

GENERAL MANAGER

EPA Docket Center
Attention Docket ID No. EPA-HQ-OAR-2009-0491
Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Mailcode 2822T
Washington, D.C. 20460

Gainesville Regional Utilities' Petition for Reconsideration and Stay of EPA's Final Rule titled "Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States" 76 Fed. Reg. 48,208 (Aug. 8, 2011) (Docket No. EPA-HQ-OAR-2009-0491)

Gainesville Regional Utilities (GRU) is a multi-service utility owned by the City of Gainesville. GRU is the 5th largest municipal electric utility in Florida. Our combined services make us the most comprehensive utility service provider in the state. We serve approximately 90,000 retail and wholesale customers in Gainesville and surrounding areas, offering Electric, Natural Gas, Water, Wastewater, and Telecommunication Services. Currently GRU electric generation is primarily fossil fuel-based with non fossil generation representing less than 10% of our energy supply. GRU, as a member of the Florida Municipal Electric Association (FMEA), actively participated in the Clean Air Interstate Rule (CAIR) development and has installed, at significant cost, air pollution control equipment to meet CAIR emission reductions requirements. We have provided substantive comments on the proposed Clean Air Transport Rule (CATR) and CATR Allowance Allocation NODA.

As outlined in our previous comments on EPA's proposed transport rule, GRU believes that EPA has abandoned important provisions of the CAIR Rule that appear to have little to do with the Court remand of the rule. GRU has serious concerns with the more aggressive implementation schedule and specific electric generating unit (EGU) reduction requirements imposed in the Cross State Air Pollution Rule (CSAPR). There appears to be no mandate by the United States District of Columbia Court of Appeals ("Court") that would require the CSAPR compliance schedule to be more stringent than CAIR. Further, there appears to be no Court ordered requirement for the additional reductions of NO_X and SO_2 beyond those established in the CAIR Rule. GRU believes that EPA should only address the specific Court remand of CAIR and that follows the Court directive "to preserve the environmental benefits of the CAIR rule" by adopting a transport rule that achieves the original CAIR SO_2 and NO_X reductions within the CAIR timelines. EPA's new emission requirements and protocols for determining significance levels beyond those validated by the Court are unjustified and will leave EPA unnecessarily open to potential lawsuits.

GRU is a member of both the Florida Municipal Electric Association (FMEA) and the Florida Electric Coordinating Group (FCG) and we endorse their petitions for reconsideration and stay of CSAPR.

GRU has carefully evaluated the provisions and supporting documents for the CSAPR and has concluded that changes from the proposed CATR to the CSAPR are so significant as to justify a reconsideration and re-proposal of the rule. In addition, GRU believes that the adverse economic impacts of this rule on the Florida economy and Florida electric consumers are sufficient to justify a decision by EPA to stay the rule until the agency is able to consider the unresolved issues we have identified below and re-propose a rule to address these concerns.

Background: EPA developed the original transport rule, tCAIR, through a transparent process with numerous opportunities for stakeholder input and agency feedback. The regulatory impact assessment (RIA) for the resulting rule demonstrated that CAIR would achieve all of EPA's Clean Air Act air quality objectives with a minimal impact to the electric generating industry's fuel mix and consumer energy costs as illustrated by EPA's description of the results of CAIR listed below.

"*This rule will result in the deepest cuts in sulfur dioxide (SO_2) and nitrogen oxides (NO_X) in more than a decade.*

- *On March 10, 2005, the Environmental Protection Agency (EPA) announced the Clean Air Interstate Rule (CAIR), a rule that will achieve the largest reduction in air pollution in more than a decade. This action, called the "Interstate Air Quality Rule" when it was proposed in January 2004, offers steep and sustained reductions in air pollution as well as dramatic health benefits at more than 25 times greater than the cost by 2015.*

- *Through the use of the proven cap-and-trade approach, CAIR achieves substantial reductions of sulfur dioxide (SO_2) and nitrogen oxides (NO_X) emissions and is a powerful component of the Administration's plan to help over 450 counties in the eastern U.S. meet EPA's protective air quality standards for ozone or fine particles.*

- *SO_2 and NO_X contribute to the formation of fine particles and NO_X contributes to the formation of ground-level ozone. Fine particles and ozone are associated with thousands of premature deaths and illnesses each year. Additionally, these pollutants reduce visibility and damage sensitive ecosystems.*

- *By the year 2015, the Clean Air Interstate Rule will result in:*
  -- $85 to $100 billion in annual health benefits, annually preventing 17,000 premature deaths, millions of lost work and school days, and tens of thousands of non-fatal heart attacks and hospital admissions.
  -- nearly $2 billion in annual visibility benefits in southeastern national parks, such as Great Smoky and Shenandoah.

-- significant regional reductions in sulfur and nitrogen deposition, reducing the number of acidic lakes and streams in the eastern U.S."[1]

Several parties brought suits in the United States Court of Appeals for the District of Columbia, which resulted in an eventual remand of CAIR for three key flaws. First, the structure of the CAIR cap and trade program could not in theory prevent a significant ambient impact if an upwind state over relied on purchased allowances for compliance. Second, the use of a fuel factor in NO_X allowance allocations was disallowed. Third, Acid Rain allowances could not be used for the CAIR cap and trade program. However, the Court found no issues with the methodology EPA selected to screen for significant downwind impact nor did the Court impose a definitive deadline to correct CAIR's flaws. In fact, the Court made a deliberate decision not to honor the requests of some petitioners for a firm deadline for the Agency to correct the flaws in CAIR.[2] For this reason, GRU reasonably assumed that EPA would amend CAIR to address those flaws identified by the Court and proceeded to develop their compliance strategies accordingly.

On August 2, 2010, EPA proposed the CATR which not only corrected the CAIR defects identified by the Court, but increased the stringency of the SO_2 and NO_X emission caps well beyond those in CAIR. On July 6, 2011, the Clean Air Transport Rule was renamed the Cross-State Air Pollution Rule and signed by the EPA Administrator. Major changes were made in emission reduction requirements from CAIR to CATR to CSAPR regarding states covered and emission caps as illustrated in Table 1.

Table 1. Allowance Allocations for EPA's Proposed and Adopted Transport Rules

TransportRule	SO_2 Allocation 2012 (tons)	SO_2 Allocation 2014 (tons)	NO_X Annual Allocation 2012 (tons)	NO_X Annual Allocation 2014 (tons)	NO_X OS Allocation 2012 (tons)	NO_X OS Allocation 2014 (tons)	Total States Covered
CSAPR	3,270,978	2,064,887	1,205,808	1,127,255	591,038	556,748	28*
CATR	3,893,870	2,500,003	1,376,312	1,376,312	641,614	641,614	32**
CAIR	3,673,995	2,571,796	1,521,707	1,268,094	na	na	26

Oklahoma Ozone season only includes DC*

In adopting CSAPR, EPA has gone well beyond correcting the remand flaws in CAIR and has created enormous additional compliance burdens on electric utilities and their customers without apparent justification. After spending $141 million to meet the CAIR, GRU will have nearly a 27% reduction in allowances to meet CSAPR requirements as compared to CATR.[3]

[1] Source: the EPA CAIR website www.epa.gov/cair/basic.html

[2] Case: 05-1244 State of North Carolina v. Environmental Protection Agency, Petitions for Rehearing Document: 01215418702

[3] The GRU system would have received 513 Ozone Season allowances with CATR and 377 with CSAPR.

Specific Issues and Provisions of CSAPR that Warrant Reconsideration of the CSAPR Rule

EPA's general assumption that utilities should have anticipated that substantial additional changes to CAIR beyond the Court remand is unreasonable. EPA has stated in a recent Congressional hearing on CSAPR and in correspondence to an affected utility that the utility industry had ample warning to prepare for the CAIR replacement rule.[4] GRU strongly disagrees. EPA held few if any public workshops or meetings before publishing CATR or the final CSAPR. This is in stark contrast to the open and transparent stakeholder process that resulted in CAIR. This lack of an open and transparent process in developing CSAPR resulted in GRU proceeding with $141 million in capital air pollution control projects that ended up actually penalizing GRU under CSAPR for the early emission reduction actions that EPA encourages.

EPA needs to reconsider CSAPR in light of the cumulative impact of other rules being adopted for the electric utility industry. The electric utility industry is facing numerous new restrictions and significant additional capital costs due to EPA's aggressive rule making agenda. These include:

- The Utility Air Toxics Rule
- New Source Performance Standards for Green House Gases
- 316 (b) Cooling Water Intake Standards
- New Coal Combustion Residuals Standards
- And $PM_{2.5}$ and Ozone National Ambient Air Quality Standard revisions

GRU believes that the cumulative impact of these rules must be evaluated to quantify the benefits to the environment and the costs to the economy. To do less fails to appreciate the serious economic crisis facing our state and the country.

CSAPR fails to consider that GRU and many other utilities designed its CAIR compliance plan with Clean Air Mercury Rule (CAMR) requirements in mind. To meet the timelines established by EPA for CAIR and CAMR, GRU committed to purchase and install a dry FGD scrubber and an SCR system for its Deerhaven #2 coal-fired unit. The selection of a dry FCG scrubber and SCR allowed GRU to meet both the CAIR SO_2 reduction requirements while also achieving the mercury reductions required by CAMR. In addition, the dry FGD scrubber allows GRU to conserve water resources while creating a potential byproduct.

During the development of CAIR, EPA specifically considered the co-benefits of complying with CAMR as well as best available retrofit technology (BART) requirements and national visibility goals. In contrast, GRU analyses indicate that the air pollution control (APC) systems that we have installed to meet CAIR will marginally allow us to meet utility system CSAPR cap based on 2010 emissions but may not achieve proposed reductions required in Utility Air Toxic Rule without additional mercury controls. The fact that GRU spent $141 million to meet the

[4] Honorable Gina McCarthy's testimony September 15, 2011 House Science and Technology Committee; EPA response letter from Robert Perciasepe Deputy Administrator to Luminant.

requirements of CAIR and CAMR only to find out that compliance is uncertain with EPA's replacement rules is disappointing to say the least.

Florida Ozone Season NO_X allowances reductions with CSAPR represent over 89% of the total CSAPR allowance cap. While the total number of Ozone Season NO_X allowances was reduced by 5.03 % for 2012 and 10.54 % for 2014 for the Ozone Season program with CSAPR compared to CATR, Florida's reduction comprised over 89% of that reduction in 2102 and nearly 43% in 2014 (see Table 2.). This disproportionate reduction in the allocation of Ozone Season allowances is especially unfair considering that Florida utilities have more installed BACT NO_X controls systems and lower NO_X emission rates than the majority of states in the Ozone season program. It appears ironic that the deployment of "state of the art" APCs by GRU and other Florida utilities resulted in much greater NO_X ozone season reductions for Florida. This is due to the assumption by EPA that Florida can reduce NO_X tons cheaper (<$500/ton) since high efficiency NO_X APCs are already in place for Florida electric utilities. However, as will be explained later, EPA wrongly ignores the annualized capital expense borne by GRU consumers to purchase this equipment.

Table 2. Comparison of Florida Ozone Season NOx Allowance Reductions Compared to Regional Reductions

Transport Rule	NO_X OS Allocation 2012 (tons)	NO_X OS Allocation 2014 (tons)	Florida NO_X Allocations 2012 (tons)	Florida NO_X Allocations 2014 (tons)	Florida % of 2012 CSAPR NO_X Reductions	Florida % of 2014 CSAPR NO_X Reductions
CATR	622,338	622,338	55,222	55,222		
CSAPR	591,038	556,748	27,262	27,262		
% Reduction	5.03%	10.54%	50.63%	50.63%	89.33%	42.63%

Data Source CSAPR and CATR Unit Data Bases

EPA's decision to reduce Ozone Season NO_X allocations based on the assumption that states with utilities that installed APCs prior to CSAPR have no capital costs punishes early reductions and the deployment of high efficiency APCs. GRU operates some of the lowest emitting gas and coal-fired electric generating units in the CSAPR region, which employs a best available control technology (BACT) flue gas desulfurization (FGD) scrubber and an SCR. The result was that states with a large number of electric generating units with good historical environmental performance received fewer allowances than those states with much poorer emission reduction histories. This is illustrated in Table 3, which shows the NO_X emission rates that GRU must achieve for CSAPR compliance during the ozone season when compared to the average compliance emission rate for the CSAPR states in the ozone season program.

Table 3. CSAPR Ozone Season NOx Compliance Emission Rate Comparison (based on 2010 emissions)

Control Area Sources	2012 (lb/MMBtu)	2014 (lb/MMBtu)
CSAPR Regional Average	0.1026	0.0967
GRU CSAPR Required Average	0.07239	0.07239

Source: EPA CSAPR Unit Allocation Database

The Cross State Clean Air Rule unit allowance allocation methodology is poor public policy for several reasons.

First, the CSAPR allowance allocation methodology violates a key cap and trade success principle. The proposed allocation method fails to allow utilities to choose to over-control their emissions at electric generating units (EGUs) where it is cost-effective and under control at sources where it is less cost-effective. For example, if under CAIR an 80% removal of SO_2 would achieve compliance and running at 95% removal could generate surplus allowances for sale, the proposed transport rule would not allow that benefit for installing expensive pollution controls. Specifically, CSAPR awards allowances based on the lowest historical emissions of the unit which allows only minimal opportunity for very well controlled units to generate surplus allowances.

Second, the CSAPR punishes aggressive early emission reductions. Unlike the CAIR rule, by reducing allowances to those who installed expensive APC equipment, EPA is actually financially punishing utilities for both early compliance and aggressive emission reductions.

Third, CSAPR allowance allocation methodology will hurt future proactive emission reductions by industry. The shift away from the CAIR allocation methodology, one that rewards over control and early emission reductions, to a transport rule methodology that punishes the very same behavior, will create a long lasting chilling effect on future proactive emission reductions by industry.

EPA methodology for determining state allowance allocations is poor public policy and punishes GRU that in good faith installed APCs to meet CAIR and other CAA requirements. GRU as a municipal utility is owned by the community we serve. Our citizens expect us to provide not only reliable and economical electric power and also superior environmental performance from our utility operations. It is noted that many of our state's investor owned utilities have a similar consumer expectations. We believe that EPA's claim that Florida can provide very cheap NO_X reductions (<$500/ton) during the Ozone Season is based on the assumption that only the incremental cost of removing an additional ton of NO_X needs to be considered as opposed to including the capital cost of the APCs added to meet CAIR or a BACT

limit. GRU strongly disagrees. The capital costs of these systems will typically be paid for over 20 years. Our consumers are paying for those reductions. As seen in Table 4, below, the typical cost for removing a ton of NO_X with an SCR greatly exceeds $500/ ton. GRU's costs for removing a ton of NO_X with our SCR system are about $2,300/ton.[5]

Table 4. EPA Projected SCR NOx Reduction Cost

Source	Capital Cost ($/MMBtu)	O&M Cost ($/MMBtu)	Annual Cost ($/MMBtu)	Cost per Ton ($/ton)
Large Gas Turbine	5,000 - 7,500	3,500	8,500	3,000- 6,000
Coal PC Unit	10,000 - 15,000	300	1,600	2,000 -5,000

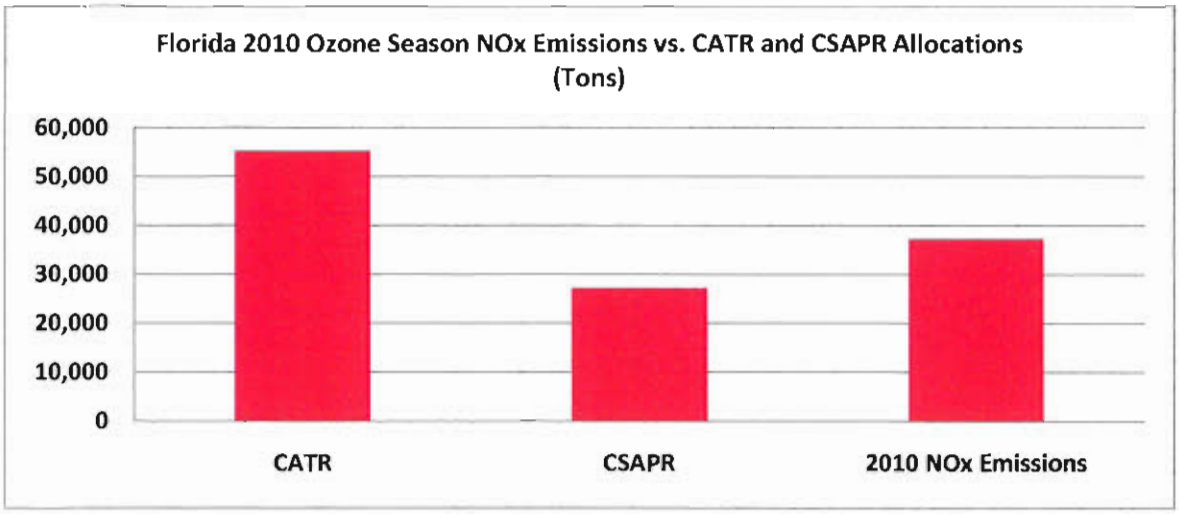
Source Air Pollution Control Fact Sheet EPA-452/F-03-032

By failing to recognize the true cost for GRU and other Florida utilities to remove NO_X emissions, EPA has increased the NO_X reduction requirements on a state with one of the lowest NO_X emission rates in the CSAPR program. Such allocation decisions by EPA will stifle future air pollution control projects that go beyond the minimum requirements to comply with environmental standards.

Without warning, EPA cut Florida Ozone Season Allowance by 50% with CSAPR Compared to CATR. While Florida was removed from the CSAPR annual emission cap programs for SO_2 and NO_X, Florida remains in the Ozone Season cap and trade program. Florida received 55,222 Ozone Season NO_X allowances under the proposed CATR but only 27,262 allowances under the final CSAPR. In 2010 the state of Florida emitted about 37,000 tons of NO_X which would place Florida in compliance under the CATR but out of compliance under CSAPR. In other words, the air pollution control systems that GRU and other Florida utilities installed to meet CAIR would allow compliance under the proposed CATR but not the final CSAPR. The CSAPR state assurance provision will limit the allowances Florida can purchase from other states to about 5,800 tons while having a deficit based on 2010 emissions of about 10,000 tons. This means that over 4,000 tons of additional NO_X reductions must be obtained within the state.

[5] Based on GRU's retrofit of its Deerhaven #2 unit to meet CAIR and CAMR requirements.

Graph 1. 2010 Florida Ozone Season NO_X Emissions Compared to CATR and CSAPR Allocations



EPA has stated in numerous public forums that CSAPR caps will likely be lowered with each lowering of the $PM_{2.5}$ or Ozone NAAQS. Since EPA's allowance allocation methodology punishes states with lower emission rates and highly efficient APCs, the future impact of CSAPR on the Florida economy could be severe.

EPA Air Quality Modeling Subjecting Florida to the CSAPR is Suspect. EPA modeling shows that Florida NO_X emissions cause a significant impact on the Ozone NAAQS attainment maintenance in Texas while having no significant impact on maintenance areas or non-attainment areas in much closer states including Alabama, Georgia, and Louisiana. Our initial review of EPA modeling results indicates that Florida's NO_X reductions will provide over 70% of the interstate transport reduction for Houston Texas when 7 states appear to significantly impact Houston's Ozone NAAQS attainment. In addition, GRU was not able to determine the relative accuracy that EPA attributes to the air quality model used for CSAPR. EPA's determination of Florida's significant impact on Texas does not seem reasonable.

The Court remand of CAIR did not require EPA to reduce regional and state caps. Florida utilities installed hundreds of millions of dollars worth of "state of the art" air pollution control systems on existing EGUs to meet CAIR. Many other EGUs were built with "state of the art" pollution controls that could comply with the CAIR caps. EPA's decision to reduce the emission caps for CSAPR below those of CAIR and even CATR was not required by the Court. EPA's decision to move the compliance "goal post" with CSAPR will result in many Florida generating units, with best available control technology (BACT), being unable to meet their unit emission caps

The CSAPR Usurps the Role of the States. In light of the stringent CSAPR compliance schedule, the Environmental Protection Agency has imposed Federal Implementation Plans (FIPs) on affected states, including Florida, rather than permitting states the time required to develop State Implementation Plans (SIPs). This stringent compliance schedule was not mandated by the Court.

Lowering the Screening Criteria for Determining a Significant Impact Was Not Required By the Court Remand of CAIR. By lowering the significance threshold in CSAPR for upwind state impact on downwind states, EPA has expanded the number of states regulated and reduced the emission caps beyond that of CAIR. In CSAPR, the significance screening level was set at 1% of the NAAQS as opposed to retaining the levels in CAIR. **This change establishes a criterion that will continually reduce the significance screening level with every revision of a NAAQS without any future consideration of whether each screening level decrease is justified.** For example, in the case of the Ozone NAAQS, this new method of determining significance lowered the CAIR threshold of 3 ppb to 0.85 ppb, which is a 270% reduction. If EPA revises CSAPR to accommodate the 2008 Ozone NAAQS, the screening level would drop to 0.75 ppb or an additional 12% reduction. As adopted, CSAPR will create a continual series of transport rules in response to future Ozone and $PM_{2.5}$ NAAQS revisions starting as soon as late this year. If EPA maintains its rigid compliance timelines, this will likely create a permanent "FIPing" of the states and derailing Congressional intent on how the SIP program was designed to work under the Clean Air Act.

EPA did not fully consider Florida transmission constraints and reliability impacts with implementing CSAPR and the lost opportunities to reduce emissions in other CSAPR states. GRU is a joint owner in The Energy Authority (TEA) , an independent corporation that buys and sells wholesale power for its 7 members throughout the country. GRU is well aware of the transmission constraints on whole power purchases entering the state of Florida. Currently Florida's transmission into the state is about 3600 MW and is nearly fully subscribed so imported power will not solve Florida's compliance issues. However, the situation with power exported from the state is also an issue. There is capacity for nearly 900 MW of power to flow north, generated with a Florida Ozone Season emission rate 40% below the CSAPR Ozone Season compliance average based on 2010 emissions. However, CSAPR allowance constraints could limit the generation of low emission energy for export.

GRU respectfully requests that EPA grant our petition to reconsider the CSAPR and re-propose the rule to address the issues we have raised. We also urge EPA to stay CSAPR and continue to enforce CAIR until a re-proposed CSAPR is adopted.

If you have questions or wish additional information on our petition, please contact Robert W. Klemans, PE at (352) 393-1283 or Robert L. Kappelmann, PE at (904) 819-6938.

We appreciate your consideration our petition.

Sincerely,

Robert E. Hunzinger
General Manager