

**Testimony of Stan Wise,
Chairman of the Georgia Public Service Commission**

before the

**U.S. House Energy and Commerce Committee
Subcommittee on Energy and Power**

**Hearing on Impacts of the Environmental Protection Agency's New and Proposed
Power Sector Regulations on Electric Reliability**

September 14, 2011

Good Morning Mr. Chairman, Ranking Member Waxman, and Members of the Committee.

I am honored to be able to appear before this distinguished Committee today and present my testimony on this important subject.

My name is Stan Wise. I am a publicly elected Commissioner of the Georgia Public Service Commission, and I currently serve as the Chairman of the Georgia Commission. In the past, I was honored to have served as President of the National Association of Regulatory Utility Commissioners (NARUC). As a utility regulator, I am responsible for ensuring that retail electricity customers in Georgia receive safe, reasonably priced, and reliable electric service. The State of Georgia has a deliberate, focused effort for resource planning for the electric sector. This process typically starts with the utility identifying needs for more generation, which my Commission certifies if the utility demonstrates it sufficiently. The utility returns to the Commission with a proposal to fill that need, and the Commission judges the prudence of their proposal. This is a robust effort and has served my state well.

The southeastern United States, and particularly my home state of Georgia, has benefited from a vibrant, growing economy that depends on reliable and affordable electricity. Recently though, the economy of Georgia has suffered with unemployment rates above the national average. I worry that the costs and reliability of new environmental rules will only further slow our recovery and cost jobs. The Georgia Chamber of Commerce in a recent letter to the Committee on Energy and Commerce (attached), expresses "our concerns with the anticipated negative economic consequences associated with the agency's [EPA] proposals."

Georgia has also been particularly active in addressing environmental concerns, with utility emissions steadily declining, while the economy grew, along with more energy sales. Since 2000 utility and industrial sources of sulfur dioxide emissions in Georgia have decreased by 58% and nitrogen oxides by 67%. (EPA Clean Air Markets, Data and Maps, State Level Emissions Quick Report at <http://camddataandmaps.epa.gov/gdm/index.cfm?fuseaction=emissions.wizard>). During this same time period, Georgia added 1.5 million new residents (18.3% growth) and job growth increased slightly by 140,000 – in spite of the current recession (from household survey

data). Electricity generation in the state increased by 40%. Going forward, a state environmental rule mandates the installation of emissions control technologies on all of the medium and large-sized coal-fired power plants in Georgia by 2016. Due to this state rule, mercury emissions have decreased by an estimated 67% from 2000. Therefore utility emissions from Georgia power plants have significantly dropped and will continue to decline. The costs of these emission reductions are already being borne by the citizens of Georgia. The major utility in Georgia, Georgia Power, has invested over \$3.7 billion in capital for environmental projects through 2010. (See attached Georgia Power statement at EPA MACT Public Hearing, Atlanta, GA, 5/26/2011.) These added controls have already increased costs in Georgia. Customers of Georgia Power see a line item on their bills for the environmental portion of their electricity costs, which is a little over \$7 per month for the average customer.

I am concerned that the current set of EPA rules facing the electric utility industry will cause reliability issues for the State of Georgia in addition to the whole United States. Currently, there are at least seven major regulatory actions that have been or are being developed by EPA that will affect the operation and viability of electric steam generating units in Georgia. They are:

- The Utility Maximum Achievable Control Technology (MACT) Rule
- The Cross-State Air Pollution Rule (CSAPR)
- The Coal Combustion Residuals Rule, also known as the Coal Combustion Byproducts Rule
- Steam Effluent Guidelines for water discharges from ash ponds and scrubbers
- National Ambient Air Quality Standards (NAAQS) for ozone, sulfur oxides, nitrogen dioxide, and particulate matter
- Cooling Water Intake Structure regulations, also known as the 316(b) Rule
- Regulation of Greenhouse Gases (GHG) from power plants

In my tenure – over 15 years – of regulating the electric utility industry, I have never seen the number, the breadth, or the potential impact that this whole group of regulations will have on the industry and on my constituents, the people of Georgia. Although I am very concerned about the costs of these regulations and the resulting increased electricity prices on the citizens and businesses of my state, today I would like to talk about the reliability of electric service. It is obvious in modern life that our manufacturing plants, transportation systems, banking and financial services, our hospitals and first-responders, and general commerce depend heavily on reliable and dependable electricity. Earlier this year, Georgia suffered a series of storms and tornados that produced widespread power outages, reminding us again how important electric service is to modern life, just like this region experienced with Hurricane Irene. I am proud that line crews from my home state were able to help get the power restored here in the District and in Virginia and Maryland. I think we can all agree that reliable, affordable electric service is a necessity of modern life.

I have two concerns about the reliability impacts of the environmental regulations facing the electric utility industry regarding reliability: (1) No comprehensive study has been done by EPA to assess the combined impact of all of these rules on the price of electricity, on jobs, on the reliability of the electricity supply, and on the overall economy; and (2) these rules as proposed and finalized don't provide sufficient time for an orderly, deliberate technology installation program, as has been the case with past environmental rules. So we

don't know how much technology investment is required or the potential power plant retirements that could be caused by these rules – and causes me great concern from a reliability standpoint. This does not seem like a responsible approach to managing our nation's energy supply.

On the first point, my concern is that I do not have enough information to make regulatory decisions for the utility industry and consumers in my state. As far as I know, the Environmental Protection Agency has not conducted a detailed study of the entire set of rules that would estimate their impact on electricity prices, economic activity, number of jobs created or destroyed, and the reliability of electric service. I only am aware of EPA evaluations of each of these rules in isolation – that is, the impact of the rule assessed independent of any other regulatory activity occurring either at the same time or close in time. One of my concerns is this piecemeal evaluation approach can easily miss the big picture, because my Commission and the utilities must consider the effect of all the regulations in deciding how to comply cost-effectively while minimizing reliability impacts. The utility must make decisions about whether to control emissions from a plant, or retire the plant and find alternate ways to supply electricity to their customers. To me, EPA's approach to analyzing the impact of these rules appears to be short-sighted and simplistic. It just does not make sense.

Apparently EPA has or intends to involve others in assessing these impacts. In the proposed Utility MACT rule published in the Federal Register on May 3rd of this year, EPA wrote (on page 25054, emphasis added):

In addition, EPA itself has already begun reaching out to key stakeholders including not only sources with direct compliance obligations, but also groups with responsibility to assure an affordable and reliable supply of electricity including state **Public Utility Commissions (PUC)**, Regional Transmission Organizations (RTOs), the National Electric Reliability Council (NERC), the Federal Energy Regulatory Commission (FERC), and DOE. EPA intends to continue these efforts during both the development and implementation of this proposed rule.

I am not aware of any interaction between the Georgia Public Service Commission and EPA on these issues. We were not contacted during the development of the MACT proposal, and have not been contacted since then while EPA is developing the final MACT rule – which is promised to be signed on or before November 16, 2011.

On the other hand, there are studies that have been published that attempt to address the cumulative impact of these rules on the utility sector and the broader economy. National Economic Research Associates, Inc. has published a study which analyzes the impact of just two of these rules, the Cross-State Air Pollution Rule and the Utility MACT rule. (See http://www.americaspower.org/NERA_CATR_MACT_29.pdf). The conclusions of their work were that:

- Average U.S. retail electricity prices in 2016 would increase by about 12%, with regional increases as much as about 24%

- Net employment in the U.S. would be reduced by more than 1.4 million job-years over the 2013-2020 period, with sector losses outnumbering sector gains by more than 4 to 1.

Additionally, NERA estimates that coal plant retirements nationally would increase by 48 GW for these two rules. (In contrast, EPA estimates only 10 GW of coal retirements for the Utility MACT rule.)

Similarly, Southern Company, the parent company of Georgia Power, state in their comments on the MACT rule (see attached Southern Company press release, dated August 4, 2011):

The capital spending and fuel switching required for compliance with EPA's proposed rules could increase electricity prices an additional 10 percent to 20 percent over the next 10 years for customers of Southern Company's subsidiaries. Southern Company's analysis of other studies by NERA Economic Consulting, Management Information Services and others indicates that electricity prices in the Southeast could increase 10 percent to 25 percent over the same 10-year period with job losses between 250,000 to 500,000.

In their MACT comments (http://www.southerncompany.com/news/news_utility_mact.aspx), Southern Company quotes a Bernstein Research study (Bernstein Research, Black Days Ahead for Coal: Implications of EPA Air Emissions Regulations for the Energy & Power Markets Mar. 19, 2010) which found that:

“regional capacity margins would be reduced by 7 to 15 percentage points, to 4% in SERC [SERC Reliability Corporation, which includes Georgia] ...”

These comments go on to say:

Consistent with this research, based on EPA's rules, Georgia Power projects an extremely low reserve margin in 2015.

These studies are the basis for my strong concern over reliability. Reserve margin represents actual assets that are available and able to provide electricity if demand increases or there is an equipment problem with operating generation. Without sufficient reserve margin, there is increased risk of outages and blackouts.

For Georgia, the major utility in the state, Georgia Power, has said in a 10-Q quarterly filing (see <http://investor.southerncompany.com/secfiling.cfm?filingID=92122-11-103&CIK=041091>, emphasis added):

Georgia Power has completed a preliminary assessment of the EPA's proposed Utility Maximum Achievable Control Technology (MACT), water quality, and coal combustion byproduct rules. [...] Although its analysis is preliminary, Georgia Power estimates that

the aggregate capital costs for compliance with these rules could range from \$5 billion to \$7 billion through 2020 if adopted as proposed. [...] Georgia Power's preliminary analysis further indicates that **the short timeframe for compliance with these rules could significantly impact electric system reliability** and cause an increase in costs of materials and services.

Therefore, the planning of the largest utility in my state estimates electricity price increases of 10-25%, the regional loss of jobs of between 250,000 and 500,000, and the significant potential for reliability impacts. I believe that before we rush into these rules Congress should require EPA – or preferable some other body – to assess the impacts of the entire set of rules on reliability, and also look at jobs, prices, and the economy.

My second concern with this set of rules – and with the Utility MACT in particular – is the unreasonably short time allowed for compliance, which requires planning, regulatory approvals, permits, and construction to address the rules. I am saying that sufficient time for a deliberate, orderly, and cost-effective compliance response is necessary. In fact, one utility in my state, Georgia Power, has set the industry standard for timely deployment of control technologies. Compression of the installation schedule expected by these rule is patently unrealistic, with higher energy prices and compromised energy reliability the likely consequence. Short timeframes for compliance effectively limit control options. They also create a risk that some affected sources will be unable to comply and thus unable to operate for some period of time until they can comply.

This is not a hypothetical issue for us. The Georgia Commission has recently received an Updated Integrated Resource Plan from Georgia Power that was prompted specifically to address the anticipated impacts of all of these new and future environmental requirements. (See attached public version of the Georgia Power IRP Executive Summary). In this updated plan, Georgia Power estimates that as many as 2,000 MW will be unavailable in 2015, because they cannot be controlled in time to comply with these regulations. Even if they could, the combination of proposed and anticipated regulations make decision-making on controls difficult if not impossible in the absence of final rule. In this filing, Georgia Power has asked my Commission to approve the retirement of two coal plants, enter into purchased power agreements for over 1,500 megawatts in 2015 to ensure reliability, and to start working on baghouse filters for their large coal power plants in anticipation of the Utility MACT rules. It is rare for a utility to ask the Georgia Commission to start expending resources ahead of a final rule – and that action is directly due to the impossibly short time frame for Utility MACT compliance.

Additionally this filing also lays out a demand side approach by the utility, where the company projects that Demand Side Management (DSM) and Energy Efficiency (EE) will reduce capacity requirements by approximately 2,600 MW over the next ten years.

With regard to the short compliance time for the MACT rule, EPA offers two solutions. The first is that the Clean Air Act allows a one year compliance extension for installation of technology, thus providing a possible four years for compliance. The one-year is not automatically granted, and thus there is uncertainty about whether this extension will be widely available. Utilities do not know if they will be granted the one-year extension, contributing to the uncertainty in their planning.

The second solution offered by EPA is that utilities should start acting now based on the proposed rule to achieve compliance with the final MACT rule by the required date. In the proposed rule (Federal Register, May 3, 2011, page 25056), EPA says (emphasis added):

to achieve compliance in a timely fashion, EPA expects that sources will begin promptly, **based upon this proposed rule**, to evaluate, select, and plan to implement, source-specific compliance options.

While this may make some sense, and this is exactly what Georgia Power is requesting, the problem that I see is that EPA has a history of making significant changes between proposed and final rules. Two very recent examples illustrate the issue well. In the first, the Industrial Boiler MACT was proposed by EPA on June 4, 2010. The Agency then published a final rule – under a court-ordered deadline – on March 21, 2011. On May 16, 2011, EPA delayed the effective dates of these rules until sometime into the future. Obviously, if a source had started a capital project based on the proposed Industrial Boiler MACT Rule, it may have started too early – given the uncertain final compliance date. They could also have been designing and constructing a control technology that could have been either over-designed or not adequate to meet the final standards. The “final” standards are still not yet final. EPA is reconsidering the rule because (<http://www.epa.gov/airquality/combustion/docs/20110516nextstepfs.pdf>):

[...] the public did not have sufficient opportunity to comment on these changes, and, as a result, further public review and feedback is required to meet the legal obligations under the Clean Air Act.

A second example is the recently finalized Cross-State Air Pollution Rule (CSAPR). The proposed rule, published August 2, 2010, was followed by 3 additional requests for more information, resulting in a final rule published on August 8, 2011. From the proposed rule to the final rule, there were very significant changes. For Georgia, the state lost substantial emissions allowances (thus making it harder for the state to comply) and was also placed into a different group of states for trading sulfur dioxide emissions. The state of Texas was not included in the proposed rule, but was inserted into the final rule. Thus with the CSAPR, similar to the Industrial Boiler MACT, any actions taken by the utilities in Georgia based on the proposed rule would have likely been inadequate due to the significantly stricter provisions in the final rule versus the proposed rule. To me, EPA’s reliance on sources acting early on a proposed rule is misguided, given the history of wide changes from proposed rules to final rules. As a regulator, I hold utilities to a standard of fiscal prudence. The Commission's expectation

for a utility to be able to recover their investments from their customers is they must be judged to have made prudent decisions on contemporaneously known information. The shifting sands of these rules make prudent early action impossible.

One approach used by EPA to justify short compliance times for the CSAPR and the Utility MACT is the choice of a particular technology for controlling acid gases, including sulfur dioxide. EPA assumes that 56 GW of coal-fired power plants will install dry sorbent injection (DSI) to meet part of the MACT standard. However, there is not a single power plant in EPA's database that met the MACT acid gas standards with this technology. DSI is a new and unproven technology that – in some cases – can reduce acid gases and sulfur dioxide. This approach by EPA is something that the Agency has done previously. That is, they have chosen to model a simple, untested technology and then use it to justify low capital costs and quick compliance timelines. In previous rules, EPA has pushed low NOx burners for nitrogen oxides, selective non-catalytic reduction systems for nitrogen oxides, activated carbon injection into existing electrostatic precipitators for mercury control, and now DSI for acid gas control. Each of these choices of technology by EPA has a common feature – their models overestimate performance and underestimate cost. History has proven that these simple technologies are not the right choice: selective catalytic reduction systems are the technology of choice for nitrogen oxide control and activated carbon injection into baghouse filters for mercury control. It is likely that DSI will only be used in a small number of power plants, and both the actual costs and time required for compliance will be much greater than EPA's models suggest using this flawed technology choice.

I would like to make one final comment on the Utility MACT in particular. I understand that the new coal plant requirements in the MACT proposal are so stringent that no new coal plants will be built. It is a mistake to base our national energy policy on this one rule, and place self-imposed limits on our economy by failing to use wisely our most abundant and secure fuel. New coal plants must be very low in emissions, but need a practical emission standard that does not preclude their construction. I urge the Subcommittee to investigate this part of the MACT rule. The long-term sustainability of my state's – and the nation's – economy will be much more difficult if we limit such a valuable fuel, only to see it shipped overseas for fuel in other countries.

In summary, I am concerned about both the power industry that I regulate and the Georgia customers that I am entrusted to protect. These environmental rules have large impacts, and EPA has not studied the total impact of the rules affecting air emissions, coal ash, and water issues. This hearing is about reliability, and I am concerned about that for my state. Georgia Power has already proposed the retirement of 569 MW of coal capacity, and is deferring a decision on an additional 2,600 MW of coal capacity until the final form of all of these regulations is clearer. The impossibly short timeframes for compliance is also a concern that affects electricity reliability. The three years (plus the possibility of one year additional) for the Utility MACT and the five months from final rule to compliance for the CSAPR will surely have an impact on electricity supply and ultimately on reliability – not to mention the down-range jobs and community impacts associated with these power plant retirements.

Congress could aid in making this situation manageable by insisting upon a comprehensive study – preferably by an agency other than EPA – on the impacts of these rules and by providing more realistic timeframes for compliance that would increase reliability and reduce costs.

Attachments:

- A. Georgia Chamber Letter re EPA.pdf
- B. Georgia Power Utility MACT hearing statement.pdf
- C. Southern Company MACT Press Release.pdf
- D. Pages from 2015 Application 8_1_11 PUBLIC DISCLOSURE_FINAL.pdf