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FEDERAL ENERGY REGULATORY COMMISSION

Technical Conference on Environmental Regulations and  
Electric Reliability, Wholesale Electricity Markets, and  
Energy Infrastructure

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**I. Introduction**

My name is John Trawick and I am Senior Vice President of Commercial Operations and Planning for Southern Company. I appreciate the opportunity to participate on the Wholesale Markets and Bilateral Trading panel in this important Technical Conference.

Southern Company's public utility subsidiaries (Alabama Power Company, Georgia Power Company, Gulf Power Company, Mississippi Power Company, and Southern Power Company) reliably and economically serve 4.4 million customers in Alabama, Florida, Georgia and Mississippi. Southern Company owns and operates a diverse generation fleet comprising approximately 45,000 MW of generating capacity. Southern Company operates a contiguous, multi-state bulk electric system on behalf of its public utility subsidiaries. This system has been operating as a single interconnected and coordinated power pool ("Pool") since the 1940's, bringing significant benefits and cost savings to the customers it serves. One of the primary objectives of the Pool is to achieve the maximum possible economies consistent with the highest practicable reliability of service, taking into consideration the reasonable utilization of natural resources and effect on the environment. In other words, to deliver safe, reliable, clean and affordable energy to the customers it serves. This objective is accomplished today based on the economic dispatch of generation resources at actual variable cost, as well as the associated free flow of energy across the Southern Electric System's four state service territory.

The Pool operates in a well-established and efficient wholesale bilateral market structure consisting of both shorter-term opportunity markets as well as longer-term capacity markets. Elements of the shorter-term opportunity markets include:

- Multiple sources for price discovery for the shorter-term markets

- Dozens of market participants
- A wide array of products consisting of both standard and non-standard products
- Price certainty with transaction settlement fixed at execution
- Physical delivery of transactions accomplished under the Commission's Open Access Transmission Tariff (OATT) structure
- Products have been bought/sold throughout the Eastern Interconnect spanning as far away as Hydro-Quebec to the North, SPP to the West, MISO-North, and Florida to the South.
- Since 2004, Southern Company has purchased 46 million MWH from the shorter-term wholesale markets for a total of \$2.3 billion.

The careful operation and close coordination of the Southern Electric System operating in a bilateral market has continued to serve customers reliably and economically for many decades.

**II. EPA's proposed CPP poses risks to wholesale markets**

In my statement, I am addressing details and support regarding the wholesale markets and bilateral trading implications in the Southeast of the EPA's Clean Power Plan (CPP):

It is important to first note that at the time of this technical conference, no final EPA guideline regarding greenhouse gas emissions from existing sources is available and it is therefore unclear how individual states will choose to implement the EPA guideline, once it is in final form. Nevertheless, based on what is known today from the EPA proposal, it is very possible that there will be some multi-state implementation plans and that there will also be some individual, state-by-state implementation plans.

Today's competitive wholesale market allows buyers and sellers to come together to facilitate an exchange of a fungible electricity product(s), with the market price for such a product most often determined by the interaction of supply and demand. One of the reasons Southern Companies have been able to transact across vast distances is because the underlying

product was basically the same across the entire Eastern Interconnect. A CPP compliance that results in a state-by-state or even a region-by-region implementation is very likely to result in eliminating, essentially overnight, the current set of common or standard products and replace them with incompatible products that only have a scope of operation within a particular state or region. Exchanges between states or regions could therefore become rare. Interstate commerce could basically cease. The need to have a Federal regulatory agency overseeing such activities therefore could become obsolete.

Regarding the longer-term capacity markets that have been in place for Southern Companies since 1993, one of the first obvious questions that come into mind with CPP are purchased power agreements with generators that are located in one state but are dedicated to serving loads in another state, either due to long term bilateral contracts to deliver energy and capacity to another state or due to ownership of a generating unit located in one state by a load serving entity whose load obligation exists in another state. It is unclear how the load serving entity's ability to rely on such a generator to meet its state energy needs will be impacted by the other state's implementation of the CPP. For example, will a load serving entity find itself making capacity payments to an out of state generating unit for a resource whose energy output is severely restricted?

Another example related to merchant generation is the case where a state's CPP compliance plan may be dependent on a low emitting generator that may be owned or controlled by any one of a variety of different parties. The state's compliance plan may assume the operation of the low emitting generation unit in order to lower the state's average emission rate or to replace the energy output of a higher emitting generating unit. However, the state environmental agency likely would not have the authority to cause, or to force, the generator to run, and the authority of the state public service commission likely would not extend beyond regulation of investor owned utilities in the state. The generator owner may choose to cease operations unless it is paid a handsome sum for the favorable environmental attributes associated with its operation. The current focus on wholesale electricity market power could change to a question of environmental market power as opposed to electricity market power.

If we turn our attention to the shorter-term wholesale markets, the issue that first comes to mind revolves around the development of non-fungible products on a state-by-state basis since the CPP strongly discourages (prohibits) the creation of carbon emissions over that power needed to serve a particular state or region, with potentially significant ramifications for exceeding established emission limits within that state or region. Even if some sort of product could be developed that could be exchanged between the states or regions, if a neighboring state or region finds itself in an emergency reliability situation, others will have to think very carefully before willingly providing power to their neighbor. For instance, if the emergency were to occur in the winter (January or February), with the entire year remaining mostly uncertain regarding year-end emission targets, then more scrutiny for coming to such an aid would likely occur rather than having such a call happen say in December when one has a better feel for whether carbon emission targets are challenged or not by taking such action.

As one looks more closely into the reasons the CPP compliance plan may hamper today's competitive wholesale markets, the primary factor is that the CPP compliance plan essentially replaces today's "economic dispatch" (based on minimizing total production cost to customers) with an "carbon-based dispatch" (based on minimizing carbon emissions to achieve the CPP target emission rates). The plan totally disregards all the cost and even non-cost components in minimizing today production cost to customers (including considerations for SO<sub>2</sub> and NO<sub>x</sub> emissions) and places its primary focus on minimizing carbon emissions of that state or region's resource portfolio. Not only will such a disregard for the current economic dispatch consideration threaten reliability but this is the primary reason that makes pricing energy transfers between entities extremely challenging. It is not at all obvious how to accomplish such settlements, much less on how the FERC could verify such exchanges were priced at "just and reasonable" rates. More important, since the overriding objective function would no longer be to minimize cost, electric rates are guaranteed to increase for customers – both short-term and long-term. The bulk electric system was planned, built and operated with the presumption of an economic dispatch basis. Drastically changing dispatch optimization algorithms (that also form the basis for today's trading patterns) from this historic paradigm should take decades to

implement. One cannot simply turn a switch at midnight on January 1, 2020 and think all will be well.

### **III. Summary**

EPA's proposed CPP creates unnecessary problems, challenges and impacts to wholesale markets and to the Southern Electric System's Pool. The proposed CPP results in risks to wholesale markets, has the potential to negatively disrupt security constrained economic dispatch processes in a way that could jeopardize reliability or result in uneconomic carbon-based dispatch of generation.

Specifically,

1. The CPP will create increased short-term and long-term costs to consumers through changes to current dispatch optimization algorithms and thereby trading patterns.
2. Regional approaches will be extremely challenging to stand-up or maintain.
3. It is likely products will be developed to support individual state implementation plans in ways that eliminate the possibility of exchanges of such products between states and regions.
4. It is not clear the role FERC will have if interstate exchanges cease to exist.
5. Inefficient or non-existent shorter-term wholesale markets between states can have a significant impact on reliability when neighbors' "emergency" calls go unheeded.

The primary way that FERC can help would be to serve as a credible, unbiased voice regarding the potential harm to wholesale markets as a result of EPA's proposed CPP, the impact on the resulting justness and reasonableness of rates that are impacted by the CPP proposals, and the resulting cost and reliability impacts on customers.