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August 8, 2014

Ms. Kathryn Cowdery  
Office of the General Counsel  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399

Re: U.S. Environmental Protection Agency Carbon Rules – Request for  
Comments

Dear Ms. Cowdery:

Attached is Gulf Power Company's response to Staff's July 10<sup>th</sup> Request for  
Comments regarding the recently proposed U.S. Environmental Protection Agency  
Carbon Rules.

Sincerely,

A handwritten signature in black ink that reads "Robert L. McGee, Jr." The signature is written in a cursive, flowing style.

Robert L. McGee, Jr.  
Regulatory and Pricing Manager

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Attachments

cc: Beggs & Lane  
Jeffrey A. Stone, Esq.

1. Please provide comments you have on legal aspects of the Clean Power Plan or proposed standards of performance for Modified and Reconstructed Sources that you believe are important for the Commission to review.

RESPONSE:

Gulf Power Company is continuing its review of the voluminous proposed GHG existing source guidelines, proposed modified and reconstructed standards, and associated data and is currently working to investigate, understand and generate detailed technical and legal comments on these proposals. The EPA's proposed GHG existing source guidelines appear to be based on reduction measures that extend well beyond the Clean Air Act's requirements. Additionally, the proposal overturns established rules on how utilities build and operate their systems while denying state officials the authority and flexibility to best meet their state's energy needs.

2. Please provide comments you have on technical aspects of the Clean Power Plan or proposed standards of performance for Modified and Reconstructed Sources that you believe are important for the Commission to review.

RESPONSE:

Proposed GHG Existing Source Guidelines

Gulf Power is currently reviewing EPA's proposed GHG existing source guidelines and modified and reconstructed standards. At this point in its review, Gulf Power's main technical concerns regarding the proposed GHG existing source guidelines include:

- (1) Baseline – Using 2012 or any single year as a baseline does not capture the variability of operating conditions and emission rates that are experienced as a part of operating and maintaining a reliable electric system from year to year.
- (2) Building Blocks – Each of the four building blocks used by EPA in calculating the proposed state goals applies generic, unproven, and non-unit or non-state specific assumptions to achieve reductions. The achievability of each building block, as prescribed by EPA, is questionable due to overly aggressive assumptions and the real world consequences of collectively and simultaneously implementing the building blocks.
- (3) Fuel Diversity and Reliability – Gulf Power's current fuel diversity would be eliminated under EPA's proposal. In setting the Florida emission rate goal, the EPA assumes coal generation in the state is reduced by 91% compared to 2012 levels. EPA's main compliance modeling scenario (Option 1 – State compliance scenario) shows Gulf Power's entire existing coal fleet retiring by 2018 to meet the state of Florida's proposed emission rate goal for Florida. Thereafter, except for the addition of some type of renewable generation, Gulf would be reliant on natural gas fired generation to serve its customers. Given that the planning and construction timeline for gas fired combined cycle units is 6 years, it is unlikely if not impossible that Gulf Power could even construct the additional natural gas generation necessary to reliably serve its customers before it has to retire its existing coal-fired generation. Complete elimination of Gulf's coal capacity exposes Gulf's customers to potential price volatility in the natural gas market and having their service reliability entirely dependent upon the continuous and uninterrupted supply of natural gas to Gulf Power's generating resources.

In addition, the natural gas infrastructure (pipeline and storage capacity) serving Gulf Power is currently not sufficient to meet these anticipated new gas supply needs and would require significant improvements in order for Gulf Power to be able to serve its customers. These natural gas infrastructure improvements combined with the potential construction costs of additional gas generating resources and the continued costs of significant stranded investments would put significant upward pressure on customer rates.

These same activities associated with adding new natural gas infrastructure and generating capacity will likely be going on across the entire southeastern United States, placing great stress on natural gas pipeline and combined cycle supply and construction resources, materials, manufacturing, and labor.

(4) Interstate Effects – Gulf Power is part of the Southern Electric System and operates in a coordinated and integrated fashion to reliably and economically serve aggregated firm-load obligations. This arrangement involves the interstate transfer of electricity. Gulf Power also owns generating assets outside Florida. EPA's proposed guidelines do not adequately address the interstate transfer of electricity. It is unclear how, if at all, individual state plans will consistently account for the interstate transmission of electricity from affected sources and non-affected sources (e.g., renewable energy, nuclear, etc.). The same issue exists with the intrastate transfer of electricity within the boundaries of the state of Florida.

(5) Stranded Investments – The proposed GHG existing source guidelines would result in stranded investments in existing generation assets. EPA's main compliance modeling scenario (Option 1 – State compliance scenario) shows Gulf Power's entire existing coal fleet prematurely retiring by 2018 to meet the proposed emission rate goal for Florida. This premature retirement of Gulf's coal fleet would result in significant stranded investments. In addition, Gulf has installed environmental controls on this fleet which, if they are retired prematurely to comply with the EPA's GHG proposal, would result in stranded investments.

(7) Compliance Timeframe – EPA is expected to finalize GHG existing source guidelines by June 2015. Under the proposal, Florida's implementation plan would be due to EPA between June 2016 and June 2018. EPA then has 12 months to review the state's plan. Possibly only six months after EPA approves Florida's plan, the state of Florida and Gulf Power will need to begin operating in a compliance mode to meet EPA's proposed interim targets (2020 – 2029). EPA's compliance options will be difficult, if not impossible, to implement to the necessary levels in such a short time period.

Reconstructed and Modified Standards

Gulf Power continues to review EPA's proposed modified and reconstructed standards, however at this point our main technical concerns include:

- (1) Achievability – EPA proposed stringent standards for modified and reconstructed boilers, IGCCs, and combustion turbines. Gulf Power is concerned about the achievability of these standards and whether they can be continuously met over the life of a facility
- (2) Applicability and Interaction with GHG Existing Sources Guidelines – Modified and reconstructed sources are regulated under Section 111(b) of the Clean Air Act (CAA). EPA proposes to regulate certain sources under both Section 111(b) and Section 111(d) of the CAA. This is inconsistent with the CAA.

3. Please provide input on the assumptions EPA employed in setting the Florida-specific interim and final emission targets in the Clean Power Plan.

RESPONSE:

Gulf Power is working to determine whether the assumptions used by the EPA accurately reflect Gulf Power's generating fleet performance capabilities. The proposal is extensive, and extracting unit specific information will take time. However, Gulf Power's preliminary review of EPA's assumptions and modeling results has already identified some areas of concern.

EPA modeled twenty-five scenarios, with each scenario containing outputs for seven years (i.e., 2016, 2018, 2020, 2025, 2030, 2040, 2050). Although the EPA has not provided the full modeling results for each of the scenarios, it is very difficult to determine the impacts to actual units based on the results EPA has provided to date. EPA's "parsed files" directly identify actual unit names and associated impacts. EPA, however, has only provided "parsed files" for select scenarios and output years: Base Case 2025, Option 1 – State 2025, Option 1 – Regional 2020, and Option 2 – Regional 2025. This level of detail is insufficient to accurately and comprehensively analyze EPA's assumptions and results. In spite of these constraints, Gulf Power has identified the following concerns with the scenarios:

- EPA's base case scenario does not acknowledge a firm scrubber retrofit at Plant Daniel Units 1 and 2.
- EPA's base case scenario does not acknowledge a scrubber system on Plant Crist Units 4 and 5.
- EPA retires Plant Crist Units 4 and 5 in the base case scenario and Plant Crist Units 6 and 7 in the Option 1 – State compliance scenario, although all units maintain a scrubber system.
- EPA unreasonably assumes new natural gas combined cycles not currently in the planning stage can be built by 2016.
- EPA's Option 1 – State compliance scenario builds 11,219 megawatts of new natural gas combined cycles in Florida by 2020 which is completely unrealistic, given constraints such as time, materials, and craft labor.
- EPA's Option 1 – State compliance scenario decreases Florida's existing coal generation by 94% in 2020 compared to EPA's base case scenario.

4. Should the effects of actions implemented after 2005, which resulted in a lower CO<sub>2</sub> footprint, be included in the EPA's Clean Power Plan, and if so, explain how and why?

RESPONSE:

The design of EPA's proposed guidelines and subsequent implementation by states should allow for use of emission reductions occurring after 2005. The use of a 2012 baseline in EPA's proposed guidelines does not recognize actions taken by states or affected sources between 2005 and 2012 that reduced emissions or emission rates.

5. Please discuss the achievability of meeting EPA's proposed Florida-specific interim and final emission targets in the Clean Power Plan.

RESPONSE:

There is considerable uncertainty about what will ultimately be required of Gulf Power Company in order to comply with the EPA's GHG Existing Source Guidelines. Given what is known at this time, Gulf believes it is unlikely that the interim and final targets for Florida in the GHG Existing Source Guidelines are technically achievable within the timeframe proposed. EPA is not scheduled to finalize GHG Existing Source Guidelines until June 2015. Under the proposed guidelines, Florida's implementation plan would be due to EPA between June 2016 and June 2018. EPA will then have 12 months to review each state's plan. Until approval of Florida's implementation plan which will include standards of performance and compliance framework/options, Gulf Power cannot determine the exact impacts on its system. However, as currently proposed, the interim and final emission rate goals and compliance timeframe are very stringent. Gulf Power cannot meet the interim and final goals as set forth in EPA's proposal with the Company's existing generation fleet. It will be difficult, if not impossible, to implement EPA's compliance options to the necessary levels in the timeframe proposed. EPA's proposed guidelines will force Gulf Power to limit or retire existing coal generation and develop new natural gas resources that would put upward pressures on retail customer rates and make customers more susceptible to volatile natural gas prices.