

BEFORE THE
UNITED STATES OF AMERICA
ENVIRONMENTAL PROTECTION AGENCY

**COMMENTS OF THE
GEORGIA PUBLIC SERVICE COMMISSION
Regarding**

Docket No. EPA-HQ-OAR-2013-0602

**Re: Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources:
Electric Utility Generating Units; 79 Federal Register 34830
(Filed, June 18, 2014)**

The Georgia Public Service Commission (“GPSC” or “Commission”) appreciates the opportunity to provide its comments to the Environmental Protection Agency’s (“EPA”) “Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units” filed June 2014 which establishes new carbon reduction goals for state-wide existing generating units. The mission of the Commission is to exercise its authority and influence to ensure that consumers receive safe, reliable and reasonably priced telecommunications, electric and natural gas services from financially viable and technically competent companies. With this in mind, the Commission has serious concerns about EPA’s proposal. Since the proposed rule’s release, these concerns have been made known publically in many different forums. In addition to Georgia Public Service Commissioners voicing their concerns at the EPA outreach “Listening” sessions held in Atlanta, Georgia, Commissioners and Staff have met with Region IV EPA administrators in person and via conference calls to gain clarity and answers regarding the effect the rule may have on Georgia citizens and whether these concerns were properly addressed in the proposed rule. Meetings have also been held with State legislators as well as Georgia’s Environmental regulators and State Energy officers. At this time, we are still doubtful about the stated purpose and stated benefits that are to be produced if the rule is enacted. Although the rule states: “The guidelines would ensure that these trends continue in ways that are consistent with the long-term planning and investment processes already used in this sector, to meet both region- and state-specific needs”, in our view, the proposal would impose considerable harm to a well-established process - Georgia’s Integrated Resource Planning process - that examines complex technical issues to determine reliable and cost-effective resources needed to meet future electric power needs. This process, enacted by the State legislature in 1990, has served Georgia citizens well over its 20-plus year history. It is unique, one of the few IRP processes still in use in the country, and is a comprehensive and resource

intensive process. In fact, regulators from around the world routinely visit the Georgia Commission to meet with Staff and Commissioners to learn about this process in the context of how regulation of electric utilities is performed in Georgia and how it could be applied to their jurisdiction. EPA's proposal lacks an appreciation of this process in the setting of guidelines under specified "building blocks" outlined in a specific manner within a specific timeframe that would conflict with Georgia's IRP process and impose additional costs to the State and to utility ratepayers by conducting additional time-consuming proceedings. We urge you to seriously consider the following comments which outline the potential issues, problems, and burdens for ratepayers associated with the proposed rules.

Fundamental Concerns for Proposed Rule

Planning Authority

The proposed Clean Power Plan intrudes on the authority of the Commission to plan for future resources and deliver reliable, reasonably priced electricity through Georgia's Integrated Resource Planning (IRP) Act. Enacted in 1990 by the Georgia Legislature, the IRP Act and the Commission's IRP rules provide specific processes for the regulated utility to propose, at least every 3 years, a robust 20-year plan to meet future electricity demand. The plan is complex and contains technical information on areas such as: demand-side resources, supply-side resources, energy-efficiency, renewable resources, generation and transmission reliability, and environmental compliance strategy. A plan is proposed by the utility which is scrutinized not only by the Commission and its Staff but by a whole host of interveners, who are other interested parties that have a stake in the outcome of this matter. This contested, transparent, and robust participatory process follows a 180-day schedule that includes the submittal of numerous questions and responses about the plan (due to the complexity of the plan, this is typically in the thousands), filing and presentation of numerous pieces of testimony, and cross-examination of witnesses testimony. Witnesses for the utility, staff, and other interested parties present several days of testimony which is heard before the full Commission. Briefs and proposed orders are filed with the Commission. The full record taken in the proceeding is considered by the Commission in order to render its decision on what is best for Georgia ratepayers. Following the approval of the resource plan, a Certification request is made by the utility to obtain approval of resources outlined in the plan. The Certification request review is conducted in an intensive and extensive 240-day transparent process which is identical to the IRP plan approval process. The utility files its request for certification (or decertification, in the case of unit retirements) of proposed resources. The Commission approves a schedule for the 240-day process. Interrogatories are submitted and responses are reviewed and analyzed. Testimony is filed and presented before the Commission over many days of hearings. Briefs and proposed orders are submitted. The entire record of evidence is considered by the Commission in making its decision. Although the EPA proposal, in language written in several sections, stated deference being given to, or no interference with, existing state planning processes, the rule, by imposing

one-size-fits-all type of guidelines based on other states, does not provide state regulators with tools to meet proposed goals based on what may work in Georgia and directly conflicts with this planning process in its proposed timeline to meet emission reduction goals. Each state is different and the proposed rule clearly lacks recognition of that fact. The Clean Power Plan as written would significantly restrict the ability of the Commission to determine the optimal cost-effective energy mix including fleet dispatch, the amount of renewable energy deployment, and the amount of energy to be reduced through energy efficiency and demand side management programs. Through the IRP process, great strides have been made toward curbing CO₂ emissions from Georgia Power owned facilities, as shown below in Figure 1, while developing a diverse portfolio mix and protecting rate payers from unnecessary cost increases.

Carbon Dioxide Emissions Georgia Power Ownership Tons

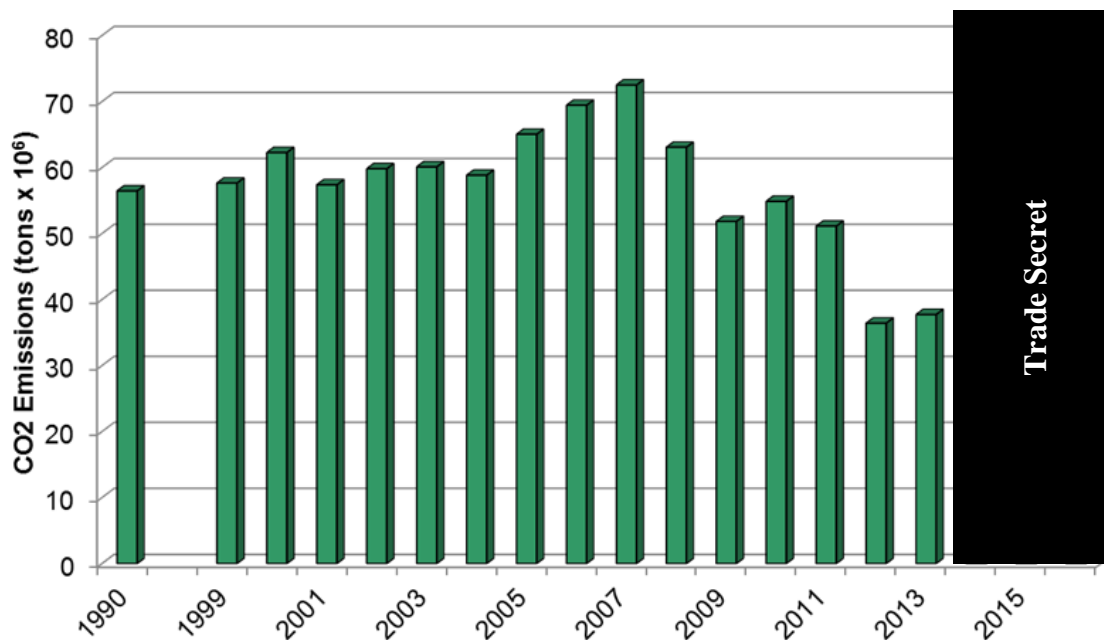


Figure 1: Historical and Projected CO₂ Emissions for Georgia Power¹

Complexity and Timing

The proposed rule is extremely complex with an aggressive timeline for planning and compliance that will make both developing and implementing a plan difficult. The Georgia Department of Natural Resources Environmental Protection Division is expected to craft the plan but will need significant input from the Commission, the Georgia Environmental Finance

¹ Docket 36498, *Environmental Compliance Strategy* dated August 2014, p. 8

Authority (the State Energy office), the Municipal Electric Authority of Georgia (representing municipal electricity providers), Oglethorpe Power Corporation (representing electric membership corporation providers), as well as the City of Dalton. Plan development is further complicated due to power transmission crossing state lines as several plants in Georgia are co-owned by entities in neighboring states. Planning for changes to the state's energy infrastructure requires substantial lead time to develop the required studies and to undergo the Commission's public hearing, review, and approval process, in addition to the time required for actual development and construction of the necessary infrastructure. A one year period to completely formulate the best plan is not realistic and will lead to mistakes and unintended long-term consequences. As such, a request for a one or two year extension is highly probable for Georgia. Under a multistate plan, if a two year extension is requested and granted, the plan will not be finalized until June 2018 leaving only eighteen months until the first benchmark will need to be realized. Given this scenario, there is not enough time to properly prepare for all of the investments that will be needed to comply with the rules.

Interstate Transfer and Plant Siting

The complex interconnected grid for Georgia crosses state lines to all of our neighboring states and many power facilities supply power and are co-owned across state lines. Multi-state collaboration is necessary to understand and plan for future dispatch to maintain compliance. For Georgia Power, Plant Scherer and Plant Gaston are prime examples of shared ownership and siting issues. Plant Scherer is co-owned by several entities including two that are located in Florida. Plant Gaston is located in Alabama but delivers significant quantities of power to Georgia customers. The current proposal as written is not clear on how to split the emissions from a coal plant that provides power for multiple states. The Commission requests more clarity on this issue including, but not limited to, the following concerns: whether Georgia will be required to absorb all of the emissions from Scherer due to the location; whether a specific agreement with each state for the sharing of emissions will need to be negotiated, and whether a trading scheme similar to the Renewable Energy Credit (REC) market will need to be developed to clearly denote emission allocations.

Benchmark Date

There also appears to be some inconsistencies regarding the year used as an initial benchmark for carbon emissions. The proposed rules use 2012 as the benchmark date for all emissions although the goals are in reference to reductions from 2005 levels to align with President Obama's Climate Action Plan. Georgia has made significant changes to its portfolio since 2005 to reduce carbon emissions including switching to Natural Gas Combined Cycle (NGCC) generation from coal, securing new renewable resources such as solar, wind and biomass, and certifying the first

new nuclear units in 30 years.² According to EIA data for 2002 to 2012, Georgia has reduced overall emissions 34.5% by tons and 26.8% by rate since 2008 and 2007 respectively.³ See Figure 2 and Figure 3 below for details of the CO₂ reduction trend over the previous several years. These totals do not perfectly align with the emissions totals identified in the proposed rule due to the inclusion of all electric generating units within Georgia, but the reductions are real and robust. As such, previous actions taken to reduce carbon emissions made over the seven year period from 2005-2012 are not accounted for in the proposed rule.

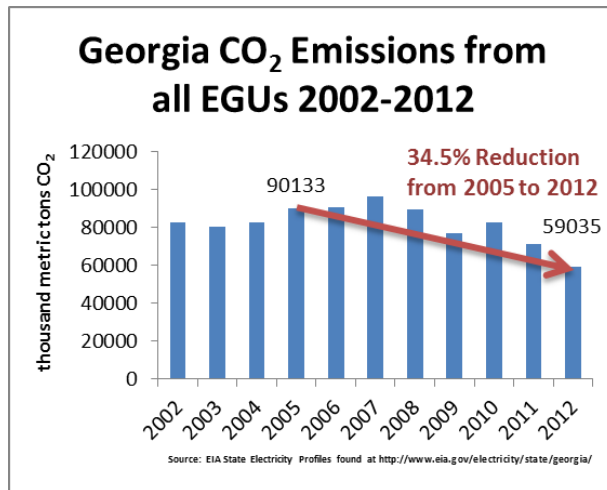


Figure 2: Georgia CO₂ emissions rate from all EGUs 2002-2012⁴

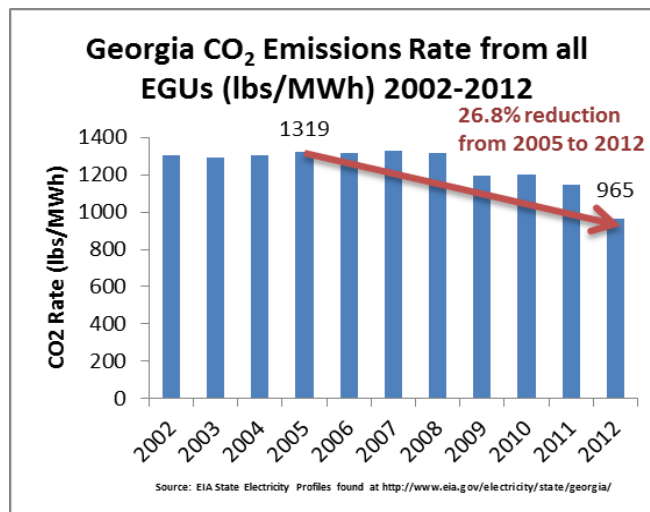


Figure 3: Georgia CO₂ Emissions Rate from all EGUs (lbs/MWh) 2002-2012⁵

² Docket 36498, 2013 Integrated Resource Plan dated January 2013

³ EIA, *Electric Power Industry Emissions Estimates*, www.eia.gov/electricity/georgia/xls/sept07.xls

⁴ EIA, *Electric Power Industry Emissions Estimates*, www.eia.gov/electricity/georgia/xls/sept07.xls

⁵ Ibid.

In the recently issued Notice of Data Availability, full data for 2010 and 2011 was released showing a drastically different fuel mix and capacity for Georgia.⁶ Any single year snapshot will have abnormalities that may not reflect the long-term energy mix and forecast for Georgia. The Commission requests the EPA give serious consideration to adjusting the benchmark emission date, whether to an earlier year or a multi-year average, to accurately reflect Georgia emissions accounting for emissions reductions made before 2012. In 2005, approximately 64% of Georgia’s generation was from coal. Today, that number is under 33%. Natural gas fired generation has grown by ten-fold since 2005, from 7% to 35%.⁷ Figure 4 below provides details of the generation mix in Georgia from 1990 to 2012. Although the exact numbers may not align between Georgia overall and Georgia Power, the overall trend is representative of actions taken. Based on the proposed rule, actions taken prior to 2012 have not been given appropriate credit in lowering Georgia’s carbon emission intensity rate. For compliance purposes only, the Commission may have been better off waiting to make decisions on utility investments in cleaner technologies until after 2012. Under the proposed rule, it appears that Georgia is being punished for having made investments in an earlier time period. These decisions were made to provide ratepayers with lower cost generating resources while also taking into account pending greenhouse gas legislation, which has been discussed in Congress for several years.

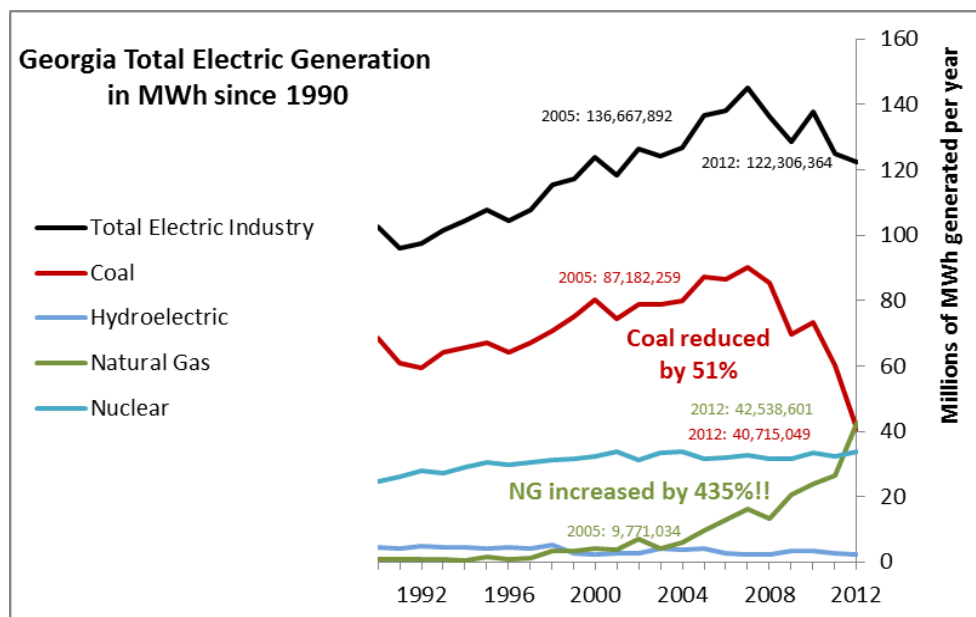


Figure 4: Total Electric Generation for Georgia 1990-2012⁸

⁶ EPA, *Notice of Data Availability*, Oct. 10, 2014. <https://www.federalregister.gov/articles/2014/10/30/2014-25845/carbon-pollution-emission-guidelines-for-existing-stationary-sources-electric-utility-generating>

⁷ EIA, *Electric Power Generation by Primary Source*, 2014, www.eia.gov/electricity/state/georgia/xls/sept05ga.xls

⁸ Ibid.

Equity between the States

With the rules as currently drafted, Georgia is mandated with a 48% reduction in its carbon emission intensity rate, which is well above the 30% average required emissions reduction across all states. We understand that the EPA attempted to tailor the rules for individual states and not set a uniform reduction across all states. However, Georgia is being asked to invest more heavily than almost every other state despite the massive emission reductions that have been achieved over the last decade and the projected emissions improvements from the addition of new nuclear power generation, increased deployment of renewables, and continued energy efficiency programs. The proposed rule is punitive toward states that have, on their own, proactively pursued emission reductions.

Additionally, if the overall purpose of the Clean Power Plan is to reduce atmospheric CO₂, then Georgia and other heavily forested states do not receive any credit for carbon sequestration through management of heavily forested areas and should be able to include a mitigation strategy using existing and planned forestry in their compliance plan. Han et al. (2007) estimated current forests in the South sequester 13% of regional greenhouse gas emissions.⁹ A study of feasibility revealed the potential of up to 200 million pounds of CO₂ equivalent across southern states at a price of \$30 per metric ton¹⁰, with another study showing a potential of 500 million metric tons for the U.S. for \$30 - \$90 per ton¹¹. Using forests to capture and store CO₂ is equivalent to using new technology to capture and store carbon directly from coal plants, while being less costly and proven to work. Encouraging investment in enormous opportunities to limit carbon in our atmosphere through sequestration and offsets should be considered in the final rule.

Stranded Assets and Rate Pressure

The proposed rule causes significant stranded costs from previous investments made to our coal fleet for environmental compliance. Georgia Power has invested \$4.3 billion through 2013 to install environmental controls mandated by prior EPA rules in order to limit other pollutants with \$1.1 billion still slated for future improvements including \$543 million in 2014 alone.¹²

Ratepayers, through rates set in recent rate cases, are already paying the cost for the retirement of over 3000 megawatts (MW) of coal production by 2016.¹³ This rule would cause another 3900

⁹ Han, Fengxiang, M. John Plodinec, Yi Su, David L. Monts, Zhongpei Li. *Terrestrial carbon pools in southeast and south-central United States*. *Climatic Change* (2007) 84:191-202

¹⁰ Galik, Christopher, Brian Murray, D. Evan Mercer. *Where is the Carbon? Carbon sequestration potential from private forestland in the southern United States*. *Journal of Forestry*. Jan 2013. 111(1):17-25.

¹¹ Stavins, Robert and Kenneth Richard. *The cost of U.S. forest-based carbon sequestration*. Pew Center on Global Climate Change. January 2005.

¹² Docket 36498, *Environmental Compliance Strategy* dated August 2014

¹³ Docket No. 36498, *Data Response STF-1-9 Attachment A Errata*

MW of coal capacity to be retired, largely before the end of their expected useful life.¹⁴ As a result of the proposed rule, ratepayers will be required to pay for new generation sources as well as previously installed environmental compliance measures for units that will have to be retired.

Building Block Specific Concerns

Building Block 1: Heat Rate

The proposed rule suggests that a 6% improvement can be made across the board for coal fired units. Georgia Power has retired, and is planning to retire, older and less efficient coal units. The Commission has approved Georgia Power's investments to maximize the power output of its units and maximize the economically viable heat rate. A set reduction should not be applied abjectly across all states, but should be based on existing technology at each unit to determine whether improvements have potential and are economic. Working toward a six percent improvement will require detailed analysis at each coal unit to determine the realistic heat rate improvements, whereas applying a general standard across various technologies and unit ages masks the true potential gains that could actually be achieved by an individual state.¹⁵ Also on a basic level, it is unlikely that any utility would not invest in heat rate improvements for its existing units if economically viable. This investment would undoubtedly be less capital intensive than new facilities and, in Georgia, would be approved in an IRP if found to be viable.¹⁶

Coal based power production is a key aspect of fleet diversity for Georgia utilities which helps mitigate potential fluctuations in fuel costs and provides reliable base-load capacity. The expected re-dispatch toward natural gas for base-load power mandated in the proposed rule will lower the capacity factor for the coal fleet. A lower capacity factor will deteriorate the heat rate for coal units due to increased start up and ramp up losses, both on a per ton basis and as an average heat rate. Coal units are most efficient when running at full capacity providing base-load power on a consistent hour to hour and day to day basis. An analysis of heat rate and capacity factor data for the large coal units, such as Plant Scherer, show an increase in heat rate as the capacity factor has decreased due to fuel switching to natural gas. Investing millions of dollars in technology to improve heat rates at coal units that are expected to have declining use would be a wasteful allocation of scarce funds.¹⁷ The combination of Building Blocks 1 and 2

¹⁴ EPA, *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants* dated June 2014

¹⁵ This fact is outlined in a 2010 EPA report: Office of Air and Radiation, *Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Coal-Fired Electric Generating Units*, U.S. Environmental Protection Agency, October 2010, <http://www.epa.gov/nsr/ghgdocs/electricgeneration.pdf>.

¹⁶ IRP certification rule, 515-3-4-.04(3)(i)2, with example in Docket 22528 dated November 2006

¹⁷ These concerns were studied by the Congressional Research Service: Campbell, Richard for the CRS. *Increasing the Efficiency of Existing Coal-Fired Power Plants*. Dec 20, 2013.

actually counteract each other limiting the ability for Georgia utilities to meet the compliance goals. The failure to model the electricity system for Georgia dynamically invalidates the methodology for goal setting in the proposed rule. The final rule must be modified to reflect a realistic and feasible target for Georgia that is a compliance option and not a mandated level of heat rate improvement.

Building Block 2: Natural Gas Re-dispatch

The assumption that the capacity factor at all NGCC units can be raised to 70% is an overreach into the resource planning authority of utility regulators. Economic dispatch is based on the principle of providing the least cost option from available fleet resources to deliver the required power to the grid.¹⁸ The diverse energy portfolio that Georgia utilities have cultivated lessens rate impacts due to unexpected price shocks. The proposed rule takes that option away from the utility and mandates which electric generating units are used irrespective of cost. This rearrangement of fleet dispatch will place additional upward pressure on rates. Additionally, the proposed rule needs more explicit and robust economic forecasting for impacts to the natural gas infrastructure to ensure system requirements can be met. Increasing NGCC capacity factors for all states will require a significant increase in natural gas supply through drilling and distribution infrastructure.

Natural gas units are used for regulation, ramping, and turndown for system wide reliability as well as base-load generation. Increasing the capacity factor to 70% may limit the ability of operators to properly control the bulk electric system. The issue is compounded by the increase of variable resources like wind and solar required by the rule. Electric system reliability is a key characteristic of power production that is not properly accounted for in the proposed rules. Further, each NGCC plant has a specific capacity factor due to the technology used that varies across the fleet that may not be amenable to a 70% capacity factor. The EPA should tailor the rule to specific units and not apply a blanket baseline that may not properly reflect the capabilities of an individual unit.

Building Block 3a: Renewables

The Commission's mission to provide reliable power at reasonable costs for ratepayers has led to an expansion of renewable resources over the last several years without a Renewable Portfolio Standard (RPS) or other mandates. As technology improvements occur and the prices for solar and wind resources continue to decline, Georgia will continue to expand renewable resources through the IRP process when the need for additional resources exist. The Commission fully anticipates the addition of renewable resources in light of the proposed rule. Recent solar

¹⁸ U.S. Department of Energy. *The Value of Economic Dispatch*. Report to Congress pursuant to section 1234 of the Energy Policy Act of 2005. November 2005

expansion which has occurred without a mandate is robust with nearly 900 MW of capacity expected to come online by the end of 2016.¹⁹ This expansion makes Georgia the 7th largest market for solar power in the United States and the fastest growing in the country.²⁰ Earlier this year, the Commission approved Georgia Power's Purchased Power Agreement for 250 MW of wind power generated in Oklahoma.²¹

If future Purchased Power Agreements are to be considered, there is uncertainty under this proposed rule as to which entity will be able to claim credit for this zero emission resource, complicating planning and goal determination. The Renewable Energy Certificates (RECs) associated with these types of power purchase agreements can vary and may lead to REC ownership uncertainty. More details are needed in the rules to understand how RECs are going to count toward rule compliance. It is unclear whether the developer that owns the RECs from a project located in the state of Georgia has the ability to sell them outside of the state. Also, it is unclear whether or not the RECs would count for Georgia solely if the project is located within the state.

The proposed rule relies heavily on the North Carolina RPS for guidance on what is achievable in this part of the country, as it is the only state with an RPS in the southeastern region. The North Carolina standard includes several items that may not be achievable or applicable to Georgia and does not properly fit within the confines of the proposed rule. First, the renewable standard allows for energy efficiency to be 25-40% of the renewable goal for all Investor Owned Utilities (IOU) and 100% for Municipal and Cooperative Utilities.²² The goals outlined are not directly applicable to the methods used to craft reduction potential in the proposed rule. Second, the North Carolina standard allows for out of state power purchases to account for up to 25% of the renewable standard.²³ There is no provision for determining who can take credit across state lines in the RPS, negating the type of negotiation required by the proposed rules. Third, the RPS is based on a mandate from North Carolina legislature to achieve goals, not on technical feasibility resulting from a detailed study of resource availability. Identifying the Best System for Emission Reductions (BSER) for renewables to comply with this rule should rely upon robust scientific study to determine Georgia's potential and should be parsed with realistic accounts for current technological and economic constraints. The final rule must be modified to reflect a realistic and feasible target for Georgia that is a compliance option and not a mandated level of renewable energy.

¹⁹ Docket 36325, *GPC Advanced Solar Initiative and ASI-Prime* dated April 2014

²⁰ Solar Energy Industries Association. <http://www.seia.org/state-solar-policy/Georgia>

²¹ Docket 37854, *Order Adopting Stipulation* dated May 2014

²² North Carolina Utilities Commission, *Renewable Energy and Energy Efficiency Portfolio Standard* filed 2008 <http://www.ncuc.commerce.state.nc.us/reps/reps.htm>

²³ *Ibid.*

Building Block 3b: Nuclear

In 2007, the Commission approved the construction of two new advanced nuclear generating units at the Vogtle site which will produce approximately 2,200 MW of carbon-free base-load power. The rule treats these new units, which are projected to be in service in 2017 and 2018, for Units 3 & 4, respectively, as existing resources. As such, the rule appears to be punitive to Georgia and its citizens. If these exact same nuclear units were announced today, the full value of production would be available for environmental compliance. Penalizing states for being proactive sends the wrong signal to those responsible for making planning decisions to meet energy needs.

By reducing nuclear production to only 5.8% of current units and removing units currently under construction from the goal calculation, the proposal sends a negative signal to utilities to invest in nuclear generation. The reduced figure is based on specific “at risk” units in other states which have no bearing on the longevity of the current nuclear units in Georgia. The Technical Support Document for Greenhouse Gas Abatement Measures show that 237 MW of nuclear capacity is at risk implying that a portion of a unit (or multiple) would shut down.²⁴ These units will either be in full operation or retired, there is no option for partial electricity production. Applying risks and the subsequent emissions reductions to units that are clearly not at risk of retirement is illogical and should be changed in the final rule. The EPA should tailor the rule to each specific unit individually and not rely on blanket assumptions in the rulemaking process. Additionally, nuclear units built in the 1970s and 1980s will require ongoing investment to maintain power production into the middle of the century. If credit is not given toward environmental compliance, one of the benefits of a potential large carbon-free investment is removed. The rules should encourage investments into zero-emission, carbon-free resources.

The proposed rule evaluates the cost and impact of Vogtle Units 3 and 4 as having no additional cost to Georgia’s ratepayers. EPA fails to understand that construction is on-going, continuation of the project is evaluated semi-annually, and ratepayers have been paying for this resource since 2011.²⁵ This evaluation, as with the original certification, incorporates carbon price scenarios and recognizes the new units as being carbon-free. The EPA incorrectly assumes the Georgia PSC did not consider the cost of carbon when certifying the new nuclear units as a carbon-free resource. From the initial financial analysis for the Plant Vogtle project, cost scenarios include the possibility of a price for carbon at multiple levels. The potential to save ratepayers from the

²⁴ EPA, *Technical Support Document, Greenhouse Gas Abatement Measures*, p 4-34

²⁵ Docket 29849, *Eleventh Semi-annual Vogtle Construction Monitoring Report* dated August 2014

costs of CO₂ emissions increases the value of Vogtle Units 3 and 4.²⁶ Georgia's investment in carbon-free energy should be given full credit toward compliance with the proposed rules.

Building Block 4: Energy Efficiency (EE) / Demand Side Management (DSM)

The Commission established and facilitates a Demand Side Management (DSM) working group consisting of diverse stakeholders that provide meaningful input and expertise in the development of Georgia Power's DSM programs. The DSM working group meets quarterly for the two year period before the IRP is filed by the utility and comprises a robust methodology for determining effective EE and DSM programs for Georgia.

As part of this process, in 2012, a Technical, Economic, and Achievable Potential (TEAPot) Study was conducted by Georgia Power through coordination with this Commission, and other stakeholders, and an updated TEAPot will be filed with the Commission early in 2015. The TEAPot identified all economically viable energy efficiency measures for Georgia Power customers and provided a basis for the design and planning for the EE and DSM programs in the 2013 IRP.²⁷

The proposed rule bases EE/DSM reductions on studies reporting the "Achievable" potential for various states. This is a fundamental misuse of this data and leads to more stringent reduction targets. Achievable potential assumes that all programs that pass the Technical and Economic tests are able to be initiated and that 100% expected customer participation in the programs will be realized. No program can reach, or could be expected to reach, this goal. The methodology for setting a realistic target for Georgia needs to be revised by the EPA in the final rule.

Through input from the DSM working group process, several programs have been proposed by Georgia Power and approved by the Commission with total energy savings increasing over the past several years. There is currently a Commission requirement that Georgia Power have an Evaluation, Measurement and Verification (EM&V) Plan for these programs, as required by the proposed rule, and an EM&V Report which is filed on a 2-3 year basis.²⁸ The Commission requests clarification in the final rule as to whether the current EM&V process that is used to determine the energy savings attributable to Georgia Power's EE programs will comply with the proposed rule.

²⁶ Docket 29849, Direct Testimony and Exhibits of Philip Hayet. Filed November 21, 2014

²⁷ Docket 36499, GPC, Cadmus, Nexant. *Achievable Energy-Efficiency Potentials Assessment*. Jan. 31, 2012 updated Dec. 4, 2012

²⁸ Docket 36499, GPC, Nexant. *Evaluation Plan for 2014-2016 Demand Side Management Programs – Final*. March 25, 2014

During the 2013 IRP, Georgia Power committed to spending nearly \$500 million on DSM/EE programs over the next 10 years.²⁹ These programs are projected to save 3,596,976 MWh during the period of 2014-2023. The programs achieved energy savings of 0.4% in 2013, 0.27% in 2012, and 0.15% in 2011, as a percentage of gross retail energy sales for the state of Georgia.³⁰ The proposed rule calls for an energy savings increase of 0.2% each year starting in 2018 and then tops out at 1.5% per year by the mid-2020s on total energy for the state. Any assumption that these programs could be increased to achieve net energy reductions equal to 9.8% of the overall electricity demand in a 15 year timeframe is not feasible and is cost prohibitive. To date, there is currently not a state managed program that has been able to achieve the proposed level of sustained demand reduction. This goal is well outside of a reasonable expectation for expansion of Georgia Power's EE programs over the next several years. The final rule must be modified to reflect a realistic and feasible target for Georgia that is a compliance option and not a mandated level of energy efficiency.

The success of utility sponsored energy efficiency programs rely on customers to choose to participate and not a mandate by this rulemaking process. While studies may show that there is potential for further adoption of certain measures, the success of all programs is dependent on consumers to adopt new technologies and to participate in the utility sponsored programs. Using the best case scenario of states located on the west coast or in the northeast is not a relevant model for what can be done in Georgia. Demographic and ideological differences between states will cause significant variation in the adoption of measures and success of programs across the country, even if those programs are identical and well managed. To better model the possible reductions for Georgia, the basis for rulemaking should be limited to what other southern states have been able to achieve in order to determine what is truly feasible. The Georgia Power TEAPot helps determine the energy savings that are feasible specific to Georgia Power's territory and the cost-effectiveness of achieving certain levels of energy savings. The EPA's goal of net annual incremental energy savings of 1.5% per year is not feasible and cost effective based on Georgia Power's 2012 TEAPot Study and lies outside the bounds of "Achievability" identified in the studies the EPA uses to set the benchmark goals.³¹

There are also questions pertaining to who has the legal authority to administer programs across the state and whether a legislative act would be required to allow specific authority that would need to be resolved before state compliance plans are finalized that ultimately could delay the

²⁹ Docket 36498, *2013 Integrated Resource Plan* dated January 2013 and Docket 36499 *Application for Certification of Amended Demand Side Management Plan* dated January 2013

³⁰ Docket 36499, *Application for the Certification of its Amended Demand Side Management Plan* dated January 2014

³¹ Sreedharan, Priya, *Recent estimates of energy efficiency potential in the U.S.* Energy and Environmental Economics. July 2012

process. Gifford, Sopkin, and Larson released a white paper that highlights these issues for several states who face similar legal complications as Georgia.³² The Commission regulates Georgia Power in this area. However, the Commission, by state law, does not have authority over the 49 participants in the Municipal Electric Authority of Georgia (MEAG Power) or the various Electric Membership Corporations (EMCs). Currently, MEAG Power and the EMCs have limited EE and DSM programs, if any. It is unclear who has the authority to run EE/DSM programs and authority to access the specific data needed to properly run an EM&V program for MEAG Power and the EMCs. MEAG Power and the EMCs provide roughly a third of the total retail energy sales for the state making the resolution of this issue critical.

Conclusion

The Georgia Public Service Commission urges the EPA to significantly modify the final rule to address the concerns raised in this document. The proposed rule is unclear and will create difficulties for regulators and ratepayers in Georgia. Additionally, the required reduction in the proposed rule is inequitable to Georgians in comparison with other states. We request an adjustment to Georgia's final goal to relieve the hardship we believe the rule, as written, will impose.

We have provided detailed comments addressing our concerns with the proposed rules including: the intrusion into the Commission's planning authority; the complexity and timing of the rule creating tight deadlines and stranded assets; regulatory confusion toward interstate emissions allocation and compliance pathways; the use of 2012 as a benchmark date creating unfair standards for Georgia masking the investments and improvements made over the past decade; inequity between states due to high levels of stringency toward Georgia; and the creation of stranded assets and placement of upward pressure on rates.

Each building block creates significant concerns which were detailed above and include heat rate improvements concerns (BB1) in that Georgia already seeks to maximize heat rate within economic boundaries, the rules are not tailored to each specific unit's technology and potential, the decreasing use of coal will lead to deteriorated heat rate, and building blocks 1 and 2 are in conflict. Concerns for Natural Gas Re-dispatch (BB2) include that the plan will have potential rate impacts due to supply pressure and infrastructure needs, it is not tailored to specific unit's capacity factor and position on the grid, and it may create reliability concerns with high levels of natural gas dispatch. Concerns for renewables (BB3a) are that the plans disregard the Commission's progress and planning authority, there is significant confusion toward ownership of RECs and trading schemes, and the reliance on North Carolina's RPS as a basis for Georgia's

³² Gifford, Raymond, Gregory Sopking, and Matthew Larson. *State Implementation of CO₂ Rules: Institutional and Practical Issues with State and Multi-State Implementation and Enforcement*. White Paper 2.0. November 2014

standards. Concerns for the treatment of Under Construction Nuclear (BB3b) are treating under construction nuclear units as if they currently exist, the reduction of Georgia's nuclear fleet based on risks determined for other state's units, assuming carbon emission reduction was not included in the benefits for the project, and treating under construction nuclear as zero cost when potentially billions of dollars remain to be spent. Lastly, concerns for Energy Efficiency / Demand Side Management concerns (BB4) are that the plans disregard the Commission's planning authority and robust processes, the methodology is a misuse of TEAPot studies which inflate EE potential in Georgia, there is uncertainty toward EM&V compliance requirements, aggressive targets may be cost prohibitive and not feasible, the reliance on customer choice and cross-state comparisons distort reduction potential, and finally, the plans create unclear authority to manage programs created for compliance.

Without revisions and clarifications, this rule will be unduly burdensome on Georgians placing upward pressure on electricity rates, an outcome that is not acceptable to our organization or the citizens we serve.