

**FILED**

**APR 01 2022**

**EXECUTIVE SECRETARY  
G.P.S.C.**

**STATE OF GEORGIA  
BEFORE THE  
GEORGIA PUBLIC SERVICE COMMISSION**

**In Re:**

Georgia Power Company's 2022 )  
Integrated Resource Plan and Application) )  
for Decertification of Plant Wansley Units) )  
1 -2 & 5A, Plant Boulevard Unit 1, Plant ) )  
Bowen Units 1-2, Plant Gaston Units 1-4 ) )  
& A, and Plant Scherer Unit 3; and ) )  
Application for Certification of the Power) )  
Purchase Agreements from Plant Harris ) )  
Unit 2, Plant Wansley Unit 7, Plant ) )  
Dahlberg Units 1, 3, & 5, Plant Dahlberg ) )  
Units 2 & 6, Plant Dahlberg Units 8-10, ) )  
and Plant Monroe Units 1 & 2; and ) )  
Application for Certification of Capacity ) )  
from Blocks 2-4 and Blocks 5 & 6; and ) )  
Application for the Certification, ) )  
Decertification, and Amended Demand- ) )  
Side Management Plan ) )

**DOCKET#** 44160  
44161  
**DOCUMENT#** 189439  
189440

**Docket No. 44160 &  
Docket No. 44161**

**MOTION TO REJECT THE GEORGIA POWER COMPANY 2022 INTEGRATED  
RESOURCE PLAN, AS FILED, AND TO REJECT IN PART THE APPLICATION  
FOR CERTIFICATION OF THE POWER PURCHASE AGREEMENTS FROM  
PLANT HARRIS 2, PLANT WANSLEY UNIT 7, PLANT DAHLBERG UNITS 1, 3, &  
5, PLANT DAHLBERG UNITS 2 & 6, PLANT DAHLBERG UNITS 8-10, AND PLANT  
MONROE UNITS 1 & 2**

**PETER HUBBARD  
GEORGIA CENTER FOR ENERGY SOLUTIONS**

**April 1, 2022**

**MOTION TO REJECT THE GEORGIA POWER COMPANY 2022 INTEGRATED RESOURCE PLAN, AS FILED, AND TO REJECT IN PART THE APPLICATION FOR CERTIFICATION OF THE POWER PURCHASE AGREEMENTS FROM PLANT HARRIS 2, PLANT WANSLEY UNIT 7, PLANT DAHLBERG UNITS 1, 3, & 5, PLANT DAHLBERG UNITS 2 & 6, PLANT DAHLBERG UNITS 8-10, AND PLANT MONROE UNITS 1 & 2**

**I. INTRODUCTION**

Pursuant to Georgia Public Service Commission (the “Commission”) Rule 515-3-4-.01, the Georgia Center for Energy Solutions (“GCES”) respectfully submits this Motion to Reject the Georgia Power Company 2022 Integrated Resource Plan, as filed, and to Reject in Part the Application for Certification of the Power Purchase Agreements from Plant Harris 2, Plant Wansley Unit 7, Plant Dahlberg Units 1, 3, & 5, Plant Dahlberg Units 2 & 6, Plant Dahlberg Units 8-10, and Plant Monroe Units 1 & 2 (the “Motion”), as filed in Docket No. 44160, and to require that the Company provide an Alternate Plan (“Alternate Plan”) that is in the public interest. GCES acknowledges that the Motion, if granted, will impact the Application for Decertification of Plant Wansley Units 1-2 & 5A, Plant Boulevard Unit 1, Plant Bowen Units 1-2, Plant Gaston Units 1-4 & A, and Plant Scherer Unit 3; the Application for Certification of Capacity from Blocks 2-4 and Blocks 5 & 6; and the Application for the Certification, Decertification, and Amended Demand-Side Management Plan (Docket No. 44161), which is expected in an integrated planning process. A specific recommendation for each existing unit and for replacement capacity will need to be confirmed by detailed analysis in the Alternate Plan, including the Power Purchase Agreements from Plant Harris Unit 2, Plant Wansley Unit 7, Plant Dahlberg Units 1, 3, & 5, Plant Dahlberg Units 2 & 6, Plant Dahlberg Units 8-10, and Plant Monroe Units 1 & 2 (the “PPAs”).

## II. JUSTIFICATION FOR MOTION

The Georgia Power Company (the “Company”) 2022 Integrated Resource Plan (“2022 IRP”) fails to adequately demonstrate the economic, environmental, and other benefits to Georgia and to customers of the Company, as required by statute in O.C.G.A. § 46-3A-2(3). The Company currently relies heavily on gas-fired generation to serve its customers (47% of retail load in 2021 was from gas-fired generation, per the 2022 IRP). The increased reliance on long-term contracted gas-fired generation via the PPAs for providing capacity as well as energy and ancillary services (e.g., Operating Reserves) subjects the Company and its customers to significant, volatile costs and to significant, growing risks that are unnecessary, avoidable, and not in the public interest. The continued and increased use of gas-fired generation together with other thermal generation results in the Company incurring significant annual fuel costs that regularly approach and surpass \$2 billion per year.<sup>1</sup> These fuel costs are wholly passed through to customers of the Company, with little or no incentive for the Company to reduce this significant annual cost or to mitigate the risks that they do not directly bear. As a result of the Additional Sum on the PPAs alone, the Company would receive a guaranteed income of \$177.2 million dollars over the first 10 years and another \$10.3 million over the next five years, plus 20% of any benefits over this amount, which is a benefit that flows virtually exclusively to the Company (not the customers of the Company), without the Company taking on any of the costs or most of the risks from these PPAs. By contrast, renewable resources—both standalone renewable resources and those paired with Battery Energy Storage System (“BESS”) resources—and standalone BESS resources can supply capacity, energy, and ancillary services that are equivalent to the services supplied by gas-fired generation.

The continued use of gas-fired generation and other fossil fuel generation results in the Company incurring significant and growing regulatory risk, climate risk, price volatility risk, and correlated fuel scarcity risk, all of which are risks that in turn create significant

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<sup>1</sup> In the words of former Wyoming Secretary of State Kathy Karpan, “...because we export energy to the rest of the country, we have other people paying our taxes.” <https://www.npr.org/2022/02/02/1077522599/a-white-house-push-to-help-wyoming-town-go-nuclear-is-being-cautiously-embraced>

risk of financial impairment of gas-fired generation asset, including the PPAs. See, for example, the U.S. Security and Exchange Commission’s (“SEC”) March 21, 2022 press release, “SEC Proposes Rules to Enhance and Standardize Climate-Related Disclosures for Investors”<sup>2</sup>, which if promulgated would negatively impact the financial viability of the PPAs and that of the Company. These same risks are not born by renewable resources. Importantly, the avoidable fuel costs and the significant, growing risks associated with gas-fired generation are incurred without the Company delivering the level of Reliability and Resource Adequacy benefits claimed in the IRP. A comparison of Reliability by Investor-Owned Utilities (“IOUs”) using U.S. Energy Information Administration Form 861 data (as submitted by the Company) shows that the Company ranked in the bottom quartile of Reliability on average from 2016-2020 among on average 138 IOUs, regardless of whether the metric is System Average Interruption Duration Index with Major Event Days, System Average Interruption Frequency Index with Major Event Days, or Customer Average Interruption Duration Index with Major Event Days. The required level of Reliability and Resource Adequacy can be provided with existing renewable technologies and existing BESS technologies, which cost less based on all-in-lifetime-cost (with equivalent services) as compared to the PPAs for which the Company is seeking one or more Certificates of Public Convenience and Necessity before the Commission.

The Action Plan that is recommended by the Company in Chapter 19 of the 2022 IRP is fundamentally based upon certification of the PPAs, which are in turn based on the 2022-2028 Capacity Request for Proposals (the “2022-2028 Capacity RFP” or “RFP”). The RFP exhibited serious flaws that arbitrarily excluded or constrained market-based solutions that could meet the purported capacity needs of the Company, as determined in the 2019 IRP. If the PPAs are approved for certification, this action will raise costs and increase risks for customers of the Company. These costs and risks could be avoided with existing technologies that provide equivalent energy, capacity, and ancillary services at lower cost without putting downward pressure on Reliability or Resource Adequacy. Accordingly, the PPAs are imprudent and should not be approved by the Commission

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<sup>2</sup> <https://www.sec.gov/news/press-release/2022-46>

without significant revision. Due to the integrated nature of this process and the inclusion of the PPAs in this planning process, the 2022 IRP itself is flawed, as it is fundamentally based on a flawed RFP, and should be rejected and revised under an Alternate Plan.

The identified RFP flaws include, but are not limited to, the following:

Technical:

- (1) the RFP excluded most resources less than 100 MW from participating in any manner in the RFP, including a notable gap between 30-100 MW. This arbitrary cut-off excluded many medium-sized projects that could provide additional value that small- and large-sized projects cannot deliver;
- (2) the RFP created barriers that disadvantaged or excluded certain technology offerings that can provide capacity, notably including compressed air energy storage and all demand-side resources. This is contrary to the Company's statement on page 4-22 of the 2022 IRP: "This [IRP] process [of which, the RFP is a fundamental part] provides for an orderly and reasoned framework through which both demand- and supply-side resources are compared on an equitable basis to develop a plan that provides for reliable and economical electric energy to serve customers' needs over the planning horizon." Excluding resources is not an equitable basis for soliciting capacity in order to meet Reliability and Resource Adequacy requirements;
- (3) the RFP required that any resource offering capacity must provide one full cycle in a 24-hour period in order to qualify for participation, without providing justification for this requirement, which disadvantaged Battery Energy Storage System plus Charging Solar ("BESS+CS") resources;
- (4) the Company states that renewable resources are weather-limited, drawing a contrast to gas resources. However, we have direct, contemporaneous evidence from Winter Storm Uri in ERCOT in February 2021 that gas resources are not only weather-limited but face correlated fuel scarcity risk, which the RFP minimizes or ignores as a risk for gas resources. The Company acknowledges such weather-related limitations for gas resources on page 11-74 of the 2022 IRP, "These units operate primarily on natural gas while maintaining limited

coal backup per the requirement of the Mercury and Air Toxics Standards rule to ensure reliable operation during periods when natural gas pipelines are constrained, such as during cold winter days." Most of the gas resources in the PPAs do not have coal backup, nor do they have Firm Transportation for most—if not all—of the year. As a result, gas resources were advantaged in the RFP;

- (5) the Company did not accurately or fairly address the value of real-time operational flexibility provided by renewable resources (with or without Automatic Generation Control), the reduction in congestion costs from small- and medium-sized resources that are distributed rather than resources that are centralized in blocks of capacity 100 MW or larger, or the transmission and distribution capital expenditure deferrals from small- and medium-sized resources in the RFP, all of which disadvantaged renewable resources;
- (6) the gas resources were advantaged in the RFP by ignoring permit condition limitations. For example, Plant Monroe (Doyle Energy Facility) Units 1 & 2 are limited to 1,550 hours each per consecutive 12-month period in order to limit carbon monoxide emissions;<sup>3</sup>
- (7) the RFP ignored the symbiotic relationship of BESS+CS, which can make a significant contribution to reliability of the Georgia Integrated Transmission System (“System”). Using a loss of load probability model to estimate the capacity credit of solar resources and BESS resources under increasing penetrations of both technologies, in isolation and in tandem, North Carolina State University researchers have demonstrated that as much as 40% more of the combined capacity can be counted on during peak demand hours compared to scenarios where the two technologies are deployed separately;<sup>4</sup>

Financial:

- (8) while BESS+CS and gas Combined Cycle (“CC”) resources were treated exactly equally in terms of Buy Down Payment penalties for capacity

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<sup>3</sup> [https://epd.georgia.gov/air/sites/epd.georgia.gov.air/files/related\\_files/document/29700041nar.pdf](https://epd.georgia.gov/air/sites/epd.georgia.gov.air/files/related_files/document/29700041nar.pdf)

<sup>4</sup> <https://nccleantech.ncsu.edu/2021/07/26/studying-the-symbiotic-relationship-between-solar-energy-storage/>

reduction, despite nominally different products (Designated Storage Capacity vs. Designated Capacity, respectively) that are functionally equivalent, BESS+CS resources were treated unequally in the RFP and were disadvantaged in at least two ways by not being allowed to designate Nominal Supplemental Capability (“NSC”) on top of a designation of Nominal Base Capability (“NBC”) like CC resources were allowed to do with duct-firing and with an option for multiple tiers of NSC;

- (9) the calculation of Contracted Capacity Cap in the RFP requires 102.5% of the NBC, where 100% of capacity and energy generated by the unit must be sold to the Company, with restrictions on NBC, but any shortfall of capacity below 92% triggers a rapid 10-day Cure Period after which significant liquidated damages are triggered, which disadvantaged BESS+CS resources;
- (10) the BESS+CS resources were disadvantaged by the calculation of replacement costs using Seasonal Availability Percentage compared to gas resources that calculate replacement costs based on a Monthly Availability Percentage, which can lead to higher performance hurdles and higher replacement costs on Undelivered Scheduled Energy vs. Undelivered Energy;
- (11) the BESS+CS resources were disadvantaged by the application of the reductive Seasonal Availability Adjustment to the Monthly Capacity Payment, which did not apply to gas resources;
- (12) Certification of the PPAs arbitrarily and unfairly shifts fuel costs to non-participating customers of the Company, including customers who fully subscribe to the Company’s solar programs such that they offset all their energy consumption and capacity needs via solar resources. This is a cross-subsidization of gas resources via the PPAs by non-participating customers of the Company;

Risk:

- (13) the gas resources were advantaged in the RFP by ignoring the risks, which are currently present and growing into the future, from federal regulation in multiple matters presently before the Supreme Court of the United States (e.g., West Virginia v. EPA), which are risks not faced by BESS+CS resources;

- (14) the gas resources were advantaged in the RFP by ignoring the substantial risks born presently by gas resources from fuel price volatility and correlated fuel scarcity due to heavy dependence on interruptible transportation during winter months on the Southern Natural Gas pipeline system, which experienced 41 days of Critical Notice Operational Flow Orders (“OFO”) from November 11, 2021 to March 15, 2022, including two days of the highest OFO Type 6 in which daily shipper imbalances threaten system integrity. This risk is inherent to gas-fired generation and follows from a dependence on vulnerable pipeline infrastructure, and which are risks that BESS+CS resources do not face at all;
- (15) the gas resources were advantaged in the RFP by ignoring the risks of financial impairment for gas-fired generation. These financial impairment risks are derivative of the regulatory risk, climate risk, fuel price volatility risk, and correlated fuel scarcity risk that gas resources face presently, which are risks that BESS+CS resources do not face at all or in equal measure;

Procedural:

- (16) the process was concluded without obtaining Post Evaluation Standard of Conduct Agreements for five members of the RFP Evaluation Team, including notably the Financial Analysis and Planning Manager and the Bulk Power Operations Compliance Assurance Manager<sup>5</sup>;
- (17) the relationship between Southern Company’s unregulated subsidiary, Southern Power Company, and Southern Company’s regulated subsidiary, the Company, is unmonitored and unregulated, which can lead to conflicts of interest between the Affiliates with substantial business before each other via the PPAs;
- (18) the justification for the capacity required for Reliability and Resource Adequacy that is solicited in the RFP is called into question by the 2021 Long-Term Reliability Assessment issued in December by the North American Electric Reliability Corporation (“NERC”), which demonstrates that the region

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<sup>5</sup> Docket No. 42641; Document Filing #188456; Georgia Power Company’s Conclusion of the 2022-2028 Capacity Request for Proposals, the Post Evaluation Standard of Conduct Acknowledgements and Final Evaluation Team List



in which the Company, its affiliates, and merchant capacity operate (SERC-SE) is anticipated to have a summer Reserve Margin as high as 46.8% in 2028 vs. the Company's Target Reserve Margin of between 14.78% and 16.25% for summer periods.<sup>6</sup>

The above-enumerated risks are born primarily—and in some cases wholly—by the customers of the Company, not by the Company. It is imprudent to put this risk on the customers of the Company, when readily available technologies that were excluded from or disadvantaged in the RFP could significantly mitigate many of these risks without downward pressure on Reliability, Resource Adequacy, Resiliency, or Affordability. GCES recommends that a final certification decision on each of the PPAs and a final decertification decision on existing units be temporarily delayed and subject to the analysis of the Alternate Plan. At this time, to provide for a well-managed transition, GCES does support renegotiating the PPAs to have a shorter tenor, which for each PPA would not exceed a target date of December 1, 2029. However, because the 2022 IRP is fundamentally based upon the results of the RFP, which are demonstrated to have serious flaws, the 2022 IRP itself is fundamentally flawed and should be rejected, as filed, and the Company should be required to develop an Alternate Plan that is in the public interest.

GCES has also identified scores of additional inconsistencies and fundamental flaws in the 2022 IRP itself and accompanying documents<sup>7</sup>, some of which are discussed briefly in this Motion and will be enumerated and discussed more fully in direct testimony filed on behalf of GCES. For example, when developing the North Georgia Reliability & Resilience Action Plan, the Company made no mention of low-cost, commercially available transmission technology options for addressing future Reliability concerns on this part of the System. These options

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<sup>6</sup> Page 95, [https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC\\_LTRA\\_2021.pdf](https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2021.pdf)  
N.B. that the Company erroneously identifies NERC on page 1-10 of the 2022 IRP as the North American Electric Reliability Council

<sup>7</sup> These include the Resource Mix Study, the Study of Renewable Capacity Values using the ELCC Methodology, the Renewable Integration Study, and most of the other accompany documents.

include Dynamic Line Rating (“DLR”) devices, advanced reconductoring, double circuiting, and numerous types of Flexible Alternating Current Transmission System (“FACTS”) devices. DLR devices were used on an existing, congested transmission line in Pennsylvania to increase the static capacity rating from between 7% and 29%, depending on season and whether the transmissions lines and the bulk electric system are operating under normal or emergency conditions, avoiding a projected annual congestion cost of \$14.5 million for a one-time expenditure of <\$1 million.<sup>8</sup> FACTS devices have been demonstrated to unlock up to 12% of a generator’s nameplate capacity.<sup>9</sup> The Company has not demonstrated that it has considered many of these low-cost options, which is a requirement to adequately demonstrate the economic, environmental, and other benefits to Georgia and to customers of the Company, as required by statute in O.C.G.A. § 46-3A-2(3).

### **III. MOTION**

For these reasons, GCES respectfully submits this Motion to Reject the Georgia Power Company 2022 Integrated Resource Plan, as filed, and to Reject in Part the Application for Certification of the Power Purchase Agreements from Plant Harris 2, Plant Wansley Unit 7, Plant Dahlberg Units 1, 3, & 5, Plant Dahlberg Units 2 & 6, Plant Dahlberg Units 8-10, and Plant Monroe Units 1 & 2, and to require that the Company provide an Alternate Plan that is in the public interest.

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<sup>8</sup> <https://www.pjm.com/-/media/committees-groups/committees/oc/2021/20210330-special/20210330-item-09-installation-considerations-education-post-meeting.ashx>

<sup>9</sup> See slide 20 at the 20-minute mark of this Sargent & Lundy webinar: <https://sargentlundy.com/in-the-news/webinar-feb-23-flexible-ac-transmission-systems-facts/>