DIRECT TESTIMONY OF
JEFFREY R. GRUBB, JEFFREY B. WEATHERS, AND SHERRI T. RADNEY

GEORGIA POWER COMPANY'S APPLICATION FOR THE CERTIFICATION OF THE 2023 BIOMASS POWER PURCHASE AGREEMENTS

DOCKET NO. 44880

I. BACKGROUND

Q. PLEASE STATE YOUR NAMES, TITLES, AND BUSINESS ADDRESSES.

A. My name is Jeffrey R. Grubb. I am the Director of Resource Planning for Georgia Power Company ("Georgia Power" or the "Company"). My business address is 241 Ralph McGill Boulevard, N.E., Atlanta, Georgia 30308.

My name is Jeffrey B. Weathers. I am the Director of Resource Planning for Southern Company Services, Inc. ("SCS"). My business address is 600 North 18th Street, Birmingham, Alabama 35203.

My name is Sherri T. Radney. I am the Capacity Procurement Manager for Georgia Power. My business address is 241 Ralph McGill Boulevard, N.E., Atlanta, Georgia 30308.

Q. MR. GRUBB, PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A. I began my career with Georgia Power in 1992 as a cooperative education student in Commercial and Industrial Marketing. I graduated from the Georgia Institute of Technology in 1996 with a Bachelor of Science degree in Mechanical Engineering. After joining the Company as a full-time employee in 1997, I worked in various roles within Marketing until 2001 at which time I participated in a Company developmental program where I gained experience in a wide range of functional areas. During this period, I earned a Master of Business Administration degree from Auburn University in 2000.

In 2003, I joined the Resource Policy and Planning organization at Georgia Power where I served as a Project Manager through 2006. From 2007 through 2016, I worked for SCS in various planning roles including SCS Forecasting Team Leader (2007), SCS Fuels Planning Manager (2007-2011), and SCS Resource Planning Project Manager (2011-2016) where I managed the team that supports the development of the Southern Company System Integrated Resource Plan ("IRP"). In this role, I supported Georgia Power's 2013 IRP (Docket No. 36498) and 2016 IRP (Docket No. 40161). In 2016, I returned to Georgia Power as Project Manager in Resource Policy and Planning where I worked on the development of the 2016 IRP. Beginning in March 2018, I assumed my current position of Director of Resource Planning for Georgia Power.

Q. MR. GRUBB, HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE GEORGIA PUBLIC SERVICE COMMISSION?

Q. Yes. I previously testified in Docket No. 55378, Georgia Power's 2023 IRP Update; Docket No. 44160, Georgia Power's 2022 IRP; Docket Nos. 4822, 16573, and 19279, the Georgia Public Service Commission's ("Commission") Review of Georgia Power's PURPA Avoided Cost Methodology; Docket No. 42310, Georgia Power's 2019 IRP; Docket No. 42625, Georgia Power's Application for the Certification of the 2020/2021 Renewable Energy Development Initiative ("REDI") Utility Scale Power Purchase Agreements ("PPAs"); Docket No. 41596, I Georgia Power's Application for the Certification of the 2018/2019 REDI Utility Scale PPAs; Docket No. 41734, Georgia Power's Application for the Certification of the 2018/2019 REDI Utility Scale PPAs for the Commercial and Industrial ("C&I") Program.

Q. MR. WEATHERS, PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A. I graduated from Auburn University in 1996 with a Bachelor of Science in Mechanical Engineering, and in 1998 with a Master in Business Administration degree. I began my career at Southern Company in 1998 at Plant Farley and joined SCS in 1999. Over the next seven years, I progressed through roles of increasing responsibility in System Planning, Fleet Operations, Asset Management, and Southern Power Generation

Development. I became the Energy Analysis Manager in 2006 with responsibility for analyzing wholesale contracts, trading, and pool transactions. In 2011, I became Manager of Financial and Contract Services, with responsibility for the wholesale billing, settlement, and analysis of the Intercompany Interchange Contract, the wholesale contracts of the operating companies, and the Open Access Transmission Tariff. In December 2015, I moved into the role of Strategic Generation Planning Manager with responsibility over energy budgeting, scenario planning and forecasting, and asset valuations. In September 2016, I became Resource Planning Manager and assumed additional responsibilities related to the coordinated planning process. My responsibilities now include integrated resource planning, energy budgeting, evaluation of Requests for Proposals ("RFP"), reliability and reserve margin analysis, scenario planning and forecasting, asset evaluations, and production cost modeling and analysis.

Q. MR. WEATHERS, HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE GEORGIA PUBLIC SERVICE COMMISSION?

A. Yes. I have previously testified in Docket No. 44160, Georgia Power's 2022 IRP; Docket No. 43814, Certification of 2022-2023 Utility Scale PPAs; Docket Nos. 48220, 16573, and 19279, the Commission's review of the Company's avoided cost methodology; Docket No. 42625, Georgia Power's Application for the Certification of the 2020/2021 REDI Utility Scale PPAs; Docket No. 42310, Georgia Power's 2019 IRP; Docket No. 41596, Georgia Power's Application for the Certification of the 2018/2019 REDI Utility Scale PPAs; Docket No. 41734, Georgia Power's Application for the Certification of the 2018/2019 REDI Utility Scale PPAs for the C&I; and Docket No. 39638, FCR-24.

Q. MS. RADNEY, PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A. I began my career with Georgia Power in 2002 as an engineering intern in Generation. I graduated from Mercer University in 2004 with a Bachelor of Science degree in Electrical Engineering. After joining the Company as a full-time employee in 2004, I worked in various roles in engineering, operations, maintenance, and planning at

various power generating facilities within Generation until 2015. I earned a Master of Business Administration degree from Columbus State University in 2012. In 2015, I joined the Commercial Operations and Trading organization at Southern Power Company where I implemented and managed Power Purchase Agreements for thermal and renewable resources through 2017. From 2017 through 2023, I worked for Alabama Power Company where I was the Project Manager for capacity RFPs and procurement activities. Beginning in July 2023, I assumed my current position as Capacity Procurement Manager for Georgia Power.

Q. MS. RADNEY, HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE GEORGIA PUBLIC SERVICE COMMISSION?

A. No. I have not previously testified before the Commission.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. We file our testimony in support of Georgia Power's Application for the Certification of the 2023 Biomass Power Purchase Agreements (the "Application") submitted pursuant to O.C.G.A. § 46-3A-4, as part of the Integrated Resource Planning Act. The Company filed the Application, including the PPAs on July 29, 2024. We wish to incorporate that filing by reference into this testimony.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Our testimony supports the Company's Application for three PPAs ("2023 Biomass PPAs") which the Company awarded pursuant to the 2023 Biomass Request for Proposals ("Biomass RFP"). Georgia Power has procured, through a market-based competitive solicitation and in compliance with the Commission's directive to procure up to 140 megawatts ("MW") of new biomass capacity, these PPAs which will continue the expansion of renewable resources for Georgia Power's customers. In addition, by certifying these PPAs, the Company and the Commission will continue to advance, as recognized by the Commission, the benefits of biomass as a renewable resource to support Georgia's forest industry and rural and economic development growth.

II. DESCRIPTION OF RESOURCES SELECTED

Q. HAVE YOU SUBMITTED COPIES OF THE PPAs TO THE COMMISSION?

A. Yes. The Company has attached and filed with the Commission Trade Secret and Public Disclosure copies of the 2023 Biomass PPAs to Georgia Power's Application as Appendix A and Appendix B.

Q. PLEASE DESCRIBE THE RESOURCES GEORGIA POWER SEEKS TO CERTIFY.

A. The Commission's Order Adopting Stipulation As Amended regarding Georgia Power's 2022 Integrated Resource Plan ("IRP") in Docket No. 44160 ("2022 IRP Final Order"), directed the Company to reissue the Biomass RFP to procure up to 140 megawatts ("MW") of new biomass capacity and energy for Georgia Power customers. Pursuant to the 2022 IRP Final Order, Georgia Power issued the Biomass RFP seeking to procure up to 140 MW of new biomass generation with expected in-service dates in between June 2025 and 2029. In its April 21, 2023 Order Approving the Final Request for Proposals and Power Purchase Agreement Documents with Modifications in Docket No. 44880 (the "Procurement Order"), the Commission ordered the Company to procure biomass resources up to 80 MW in size, and as approved, bidders could elect a contract term of 10, 15, 20, 25 or 30 years for projects located anywhere in the United States so long as the facility could deliver their energy to Georgia Power. The Procurement Order required the Company to select projects using biomass, and other approved fuels, and secure the environmental attributes and electrical products produced by or related to the energy production. The Procurement Order also permitted the Company to accept both new greenfield projects and biomass addition projects. On April 21, 2023, the Commission also issued an Order in Docket No. 44160 modifying the 2022 IRP Final Order to amend the definition of approved allowable fuel for biomass projects to include tire derived fuels ("TDF"). Following a challenge from intervenors, on June 8, 2023, the Commission granted reconsideration and vacated its previous Order modifying the 2022 IRP Final Order. As a result, the Company removed

TDF as permissible fuel in the RFP. The three 2023 Biomass PPAs received by the Company include:

A ten (10) year Biomass Addition PPA with International Paper Company that will provide energy, Environmental Attributes, and Electrical Products from the 3.6 MW Port Wentworth Mill facility located in Chatham County, Georgia;

A ten (10) year Biomass Addition PPA with International Paper Company that will provide energy, Environmental Attributes, and Electrical Products from the 4.3 MW Flint River Mill facility located in Macon County, Georgia; and

A thirty (30) year New Greenfield PPA with Altamaha Green Energy, LLC, that will provide energy, Environmental Attributes, and Electrical Products from the 70 MW Altamaha Green Energy, LLC, facility located in Wayne County, Georgia.

Q. HOW WILL THE COMPANY RECOVER THE COST TO IMPLEMENT AND ADMINISTER THESE PPAS?

A. The costs of conducting and administering the Biomass RFP will be offset by Biomass RFP Bid Fees and Winners' Fees. Georgia Power proposes that the Commission allow the Company to recover any remaining costs and subsequent PPA costs through the Fuel Cost Recovery mechanism.

III. EVALUATION AND SELECTION OF WINNING BIDS

Q. PLEASE DESCRIBE HOW THE COMPANY SELECTED THESE THREE PPAS AS RESOURCES TO BRING FORWARD FOR CERTIFICATION.

A. As part of the 2022 IRP Final Order, the Commission directed Georgia Power to procure 140 MW of new biomass generation, with a required commercial operation date as early as June 1, 2025. The Biomass RFP accepted bids for a New Greenfield Project and Biomass Addition Project. As defined in the Biomass RFP, a New Greenfield Project is a project for the construction and operation of a new electric plant for the generation of Renewable Energy fueled by Biomass; whereas a Biomass

Addition Project is a project to add and operate additional capacity for the generation of Renewable Energy fueled by Biomass to an existing and operational electric generating plant fueled by Biomass. In accordance with the Commission's RFP Rule governing RFPs, the Company drafted the 2023 RFP for Biomass Generation, a Biomass Addition Project Pro Forma PPA, and a New Greenfield Project Pro Forma PPA. On April 21, 2023, the Commission issued its Order Approving the Final Request for Proposals and Power Purchase Agreement Documents with Modifications in Docket No. 44880. Georgia Power issued the Biomass RFP on April 28, 2023. Georgia Power accepted new biomass generation bids from qualified bidders through the Independent Evaluator ("IE") website from May 3, 2023, through July 14, 2023. The Company received four offers for 107.9 MW from three unique bidders. The analysis of these Biomass RFP PPAs resulted in a selected portfolio of 77.9 MWs and utilized input data and assumptions consistent with the Budget 2023 planning assumptions.

Q. IN EVALUATING BIDS, WHAT FACTORS DID THE COMPANY CONSIDER IN DETERMINING WHICH PROPOSALS PROVIDED THE BEST VALUE?

A. Although Georgia Power also considers certain non-price and qualitative factors, including: (1) Reliability impacts associated with the facility location inside Southern Company's transmission territory; (2) Interconnection directly to the Georgia Power Transmission System or Georgia Power Distribution System; (3) Bidder development experience; and (4) Project scheduling risk, the primary evaluation criterion that distinguished the bids providing the most value was the economic benefit to customers. The Biomass RFP solicited bids for biomass resources across the United States. The Company reviewed proposals submitted for consideration in the Biomass RFP and evaluated each against each other, and the IE and the Commission Staff reviewed and confirmed the results. The Company evaluated each Bid submitted into the Biomass RFP and ranked each Bid based on the net present value benefits to Georgia Power's customers on a dollar per MW hour basis. From this ranking, Georgia Power selected a Competitive Tier to conduct its transmission evaluation to determine the costs of transmission grid improvements necessary to integrate the projects. These transmission costs were then imputed to each bid, and the Competitive Tier was reranked to reflect the transmission and distribution impacts in the total net benefit calculation. The

Commission Staff and IE confirmed Georgia Power's transmission analyses and the resulting impact on the Competitive Tier rankings. Following this review and based on the rankings, Georgia Power selected a Short List, which included three offers from two unique bidders. The Company required each bidder selected from the Short List to execute either a Biomass Addition or New Greenfield Pro Forma Biomass PPA for Biomass Generation previously approved by the Commission on April 21, 2023. Throughout the process, the Commission Staff and the IE independently verified the process and steps taken by the Company during the Competitive Tier and Short List selection.

Q. WAS A COST BENEFIT ANALYSIS PERFORMED IN EVALUATING THE BID PROPOSALS?

A. Yes. The Company performed a Total Net Benefit Analysis of the biomass bids consistent with the prior RFP evaluations and agreed upon with Commission Staff and IE. The total net benefit is the difference between the cost of energy from the biomass resources and the Company's projected avoided costs. The costs consist of the payments made to the Generator plus any costs associated with system improvements necessary to deliver the energy to the Company's customers. The payments made to the Generators will be calculated by multiplying the bid price times the amount of energy delivered. The transmission and any appropriate distribution costs were provided by Georgia Power and Southern Company Services Transmission and Distribution personnel based on the characteristics of each facility described within the bids. The avoided costs for each bid were calculated by applying the hourly avoided energy and capacity cost projections from the Budget 2023 planning data to the hourly output from the Facility, as provided by the bidder. Each bid has a different and unique avoided cost because the typical hourly outputs differ between bids due to diverse design parameters such as capacity, cogeneration specifications, or steam requirements. To appropriately compare projects of different MW sizes, the Total Net Benefit of each bid was expressed in terms of a levelized dollar per megawatt hour. In this Biomass RFP, the costs for each biomass bid are greater than the Company's projected avoided costs for each bid, resulting in a negative Total Net Benefit for each bid.

Q. WAS A QUALIFYING FACILITY PPAs AMENDMENT INCLUDED IN THE PPAs?

Georgia Power and International Paper Company have existing PURPA qualifying facility contracts for the Flint River Mill and Port Wentworth Mill facilities. To accommodate the new Biomass Addition PPAs sought for certification, Georgia Power and International Paper Company sought to amend the existing "Contract for the Purchase of Firm Capacity and Energy from a Renewable Qualifying Facility Utilizing the Proxy Unit Methodology" for the Flint River Mill and Port Wentworth Mill facilities. The amendment will align the sale of energy generated in excess of the Committed Capacity under current QF PPAs to the requirements set forth in the Biomass Addition PPAs and resolve inconsistent provisions between the QF and Biomass Addition PPAs.

IV. ADDITIONAL SUM

Q. WHAT ADDITIONAL SUM IS THE COMPANY PROPOSING IN THIS CASE?

A. The 2022 IRP Final Order grants the Company an additional sum of $3/kW per year. The Company is requesting an additional sum for each of the three Biomass PPAs of approximately $3/kW per year of the applicable PPA term starting in 2026.

V. CONCLUSION

Q. PLEASE SUMMARIZE THE SPECIFIC REQUESTS THE COMPANY IS MAKING IN THIS CASE.

A. The Company is requesting that the Commission:

(1) Grant a Certificate of Public Convenience and Necessity for each of the three Biomass PPAs;

(2) Approve the Company's proposed Additional Sum as requested in the Application.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.