

PUBLIC DISCLOSURE

**Georgia Power Company's Application
for the Certification of the Twiggs County Battery
Energy Storage System**

Docket No. 56258

PUBLIC DISCLOSURE

Georgia Power Company's Application for the Certification of the Twiggs County Battery Energy Storage System Docket No. 56258

Applicant name, address and principal place of business:

Georgia Power Company
241 Ralph McGill Blvd NE
Atlanta, Georgia, 30308

Authorized person to receive notices or communications with respect to application:

Ty Story
Regulatory Affairs, BIN 10230
Georgia Power Company
241 Ralph McGill Blvd NE
Atlanta, Georgia, 30308
Voice: 404-506-2921
Email: tjstory@southernco.com

Location for public inspection:

Georgia Power Company
241 Ralph McGill Blvd NE
Atlanta, Georgia, 30308

PUBLIC DISCLOSURE

Affidavit and Basis for the Assertion That Redacted Portions of Georgia Power Company's Application For the Certification of the Twiggs County Battery Energy Storage System are Protected as Trade Secret

Georgia Power Company ("Georgia Power" or the "Company") submits to the Georgia Public Service Commission its Application for Certification of Twiggs County Battery Energy Storage Systems ("BESS"), including four attachments, which contain information and data supporting the proposed project, including the PPA Amendment ("Amendment 1") to the Twiggs County Solar providing for the construction and operation of Twiggs County BESS, sensitive terms and conditions contained within the Engineering, Procurement, and Construction ("EPC") Agreement and the Battery and Equipment Supply Agreement ("BESA"), pricing information, resource operational capability data, and development timelines, as well as certain information regarding the Company's proprietary planning processes, financial data, technology screening assumptions, generic technology and resource cost information, specific resource and technology cost information, economic analyses, including confidential details regarding current and future transmission projects (the "Information"). Certain portions of the Information are trade secrets of Georgia Power and Southern Company and their affiliates and is therefore protected from public disclosure under Commission Rule 515-3-1-.11.

The trade secret portions of the Information derive economic value from not being generally known to, and not being readily ascertainable by proper means by other persons who can obtain economic value from their disclosure or use. Specifically, the trade secret portions of the Information contained herein include competitively sensitive pricing and operational capability data, including project development timelines where applicable, specific to the resources under contract and proposed to be developed. If the Information were made public, competitors, bidders, and suppliers could use the Information to unfairly manipulate the request for proposals process and competitive market to structure future bids and set an artificial price floor to arbitrarily increase prices to the detriment of the Company and its customers. Public dissemination of the Information would undermine Georgia Power's ability to negotiate the best price and contract terms and could harm the Company's ability to secure the best cost bids and resources for the benefit of customers.

The trade secret portions of the Information also contain competitively sensitive cost information related to available technology options, processes and data used by Georgia Power in analyzing resource addition schedules, financial data used in the Company's resource analyses, and other confidential details including data supporting resource economic evaluations. Public dissemination of the trade secret portions of the Information would allow Georgia Power's competitors and suppliers to have access to such processes and strategies and thereby gain an unfair competitive advantage in the marketplace. Competitors would obtain an unfair advantage because they are not required to reveal similar information and can utilize such trade secret portions of the Information to manipulate pricing and timing of supply to the disadvantage of Georgia Power. Competitors would also unfairly benefit in having access and insight into the Company's planning

PUBLIC DISCLOSURE

processes and methodologies. This competitive advantage for the Company's suppliers and competitors would mean that Georgia Power will potentially pay higher prices to suppliers, ultimately harming Georgia Power and its customers.

Additionally, the Information contains competitively sensitive cost information related to the prices Georgia Power has estimated for transmission equipment and specific details related to the Company's transmission infrastructure. Public dissemination of the Information would allow Georgia Power's competitors and suppliers to have access to the costs paid by the Company and insight into the Company's transmission planning process. Access to the Information would also allow competitors to gain specific insight into the Company's technical analysis regarding planned projects. Competitors would obtain an unfair advantage because they are not required to reveal similar information and can structure the pricing for competing products based on the Information. In the event the Information was released, it is quite likely that suppliers would use the Information to set the floor in establishing their own prices, thus artificially and inefficiently setting a market price that may not be representative of the best cost that the market could offer. Competitors would also unfairly benefit in having access and insight into the Company's planning processes and methodologies. This competitive advantage for the Company's suppliers and competitors would mean that Georgia Power will potentially pay higher prices to suppliers, ultimately harming Georgia Power. Finally, the Information includes details concerning Georgia Power's transmission infrastructure that may be used to pin-point vulnerabilities in the transmission system. Such portions of the Information contain Critical Energy Infrastructure Information ("CEII"), the distribution of which is subject to regulation under the Code of Federal Regulations Section 388.113.

The trade secret portions of the Information are subject to substantial procedures to maintain their secrecy. Only select Georgia Power and Southern Company personnel are granted access to the trade secret portions of the Information. Those personnel receive access only on a "need to know" basis. Parties outside Georgia Power and Southern Company affiliates and their legal counsel who have been granted access to the trade secret portions of the Information, if any, have been required to sign confidentiality agreements.

PUBLIC DISCLOSURE

Marc Vinson, first being duly sworn, deposes and states that he has reviewed the Application and all other related documents included in this filing in Docket No. 56258, and that the specific information designated as trade secret constitutes trade secrets in accordance with O.C.G.A. § 10-1-761 (2019).

Marc Vinson
Renewable Program Development Manager
Georgia Power Company

Subscribed and sworn to before me this 19th day of June, 2025.

Notary Public

PUBLIC DISCLOSURE

Georgia Power Company’s Application for the Certification of the Twiggs County Battery Energy Storage System

Docket No. 56258

TABLE OF CONTENTS

1.	Executive Summary	1
1.1	Certification of Resources.....	1
1.2	Twiggs County BESS Project	1
2.	Issuance of Winter 27_28 BESS RFP	2
3.	Bid Evaluation.....	3
4.	Twiggs County BESS (200 MW) Construction Information	4
4.1	Cost-Benefit Analysis	4
4.2	Site Selection Analysis.....	5
4.3	Fuel Use	5
4.4	Estimated Annual Costs	6
4.5	Estimated Annual Variable Costs and Operational Data	6
4.6	Rates of Escalation of Cost	7
4.7	Total Estimated Annual Average Cost per kWh	7
4.8	Equivalent Availability Factors.....	7
4.9	Capacity Factors and Duty Cycle.....	7
4.10	Efficiency	7
4.11	Unit Lifetime.....	7
4.12	Estimated Environmental Impact	7
4.13	Lead Time	8
4.14	Potential Socioeconomic Impacts	8
4.15	Special Design Feature.....	8
4.16	Total Cost Estimate	9
4.17	Major Contracts	10
4.18	Costs Associated with Construction.....	11
4.19	Cost Comparison of Similar Projects.....	12
4.20	Activities and Critical Path Schedules	12
4.21	Lead Times for Major Procurement Items	12

PUBLIC DISCLOSURE

4.22	Description of Legal Relationships	12
4.23	Other Information	12
4.24	Cost Recovery	12
5.	Certification Requirements.....	12
5.1	2023 IRP Update Impacts	12
5.2	Revised Near –Term Action Plan	13
5.3	Proposed Ratemaking Treatment of Costs	16
6.	Conclusion.....	16

Appendix A: REDACTED

Appendix B: REDACTED

Appendix C: REDACTED

Appendix D: REDACTED

PUBLIC DISCLOSURE

Georgia Power Company's Application for the Certification of the Twiggs County Battery Energy Storage System

1. Executive Summary

Certification of Resources

Georgia Power Company ("Georgia Power" or the "Company") files with the Georgia Public Service Commission (the "Commission") its Application for the Certification of the Twiggs County Battery Energy Storage System ("BESS") project ("Application"), which has been selected as the winning submission pursuant to the Winter 2027_2028 Battery Energy Storage System Request for Proposal ("Winter 27_28 BESS RFP").

The Commission's 2023 Integrated Resource Plan ("IRP") Update Final Order in Docket No. 55378 ("2023 IRP Update Final Order") amended and approved a Stipulation that required Georgia Power to conduct a narrowly tailored RFP on an expedited basis to procure between 300 and 500 megawatts (MW) of BESS resources to meet capacity needs identified by the Company in the Winter of 2027/2028.

The Company issued the Winter 27_28 BESS RFP seeking (i) Standalone BESS with grid charging capability that has a completed or in-progress transmission interconnection study and requires minimal transmission improvements (those that can be completed on or before November 30, 2027); and (ii) BESS with Renewable Resource located at an existing or previously certified solar site that has a Point of Interconnection ("POI") that allows winter discharging of the BESS. The Winter 27_28 BESS RFP was overseen by the Commission Staff and an Independent Evaluator ("IE") in accordance with Commission Rule 515-3-4-.04(3) et seq.

Pursuant to O.C.G.A. § 46-3A-4, Georgia Power now seeks to certify this 200 MW Twiggs County BESS resource, which will be paired with the existing Twiggs County Solar resource. Certifying this project will help meet the Company's capacity needs in a cost-effective and efficient manner, starting in the Winter of 2027/2028 and continuing for decades to come.

1.1 Twiggs County BESS Project

Pursuant to the 2023 IRP Update Final Order, on August 9, 2024, Georgia Power issued the Winter 27_28 BESS RFP seeking approximately 500 MW of capacity, with anticipated in-service dates on or before November 30, 2027.

Following the conclusion of the Winter 27_28 BESS RFP, the Company is seeking certification for a 200 MW BESS to be paired with the existing 200 MW Twiggs County solar facility. The addition of this new capacity resource will enable the Company to efficiently meet

PUBLIC DISCLOSURE

customer capacity needs beginning in the Winter of 2027/2028 in a cost-effective manner. Further, the addition of a BESS resource at an existing solar site utilizes existing interconnection rights and enhances the value of existing solar resources on the Company's system. The Company now seeks certification of this 200 MW project. Certification of the addition of this new resource is appropriate under Georgia law and the Commission Rules.

2. Issuance of Winter 27_28 BESS RFP

The BESS project was procured through the Winter 27_28 BESS RFP, which was approved in the 2023 IRP Update Final Order. The Winter 27_28 BESS RFP, approved by the Commission at its August 6, 2024, Administrative Session, sought to procure up to 500 MW, with the final MW target to be determined by the Final Budget 2025 ("B2025") Load Forecast and ultimately decided at certification. Attachment C to the 2023 IRP Update Final Order set forth the solicitation, product requirements, regulatory accommodations, and schedule for the Winter 27_28 BESS RFP. Specifically, the Winter 27_28 BESS RFP was designed to solicit resources that could achieve commercial operation no later than December 1, 2027, and was limited to those resources that (i) already had an Interconnection Agreement, (ii) were included in the Transitional Serial/Cluster Process, or (iii) qualified for Surplus Interconnection. Only submissions requiring minimal transmission improvements would be considered.

Per the terms of the 2023 IRP Update Final Order, eligible resources for this expedited RFP included four-hour BESS, sized 50 MW or greater, that were interconnected to the Southern Company Transmission System, located within the state of Georgia, and designed to operate from Automatic Generation Control ("AGC"). Eligible BESS resources were limited to (1) new BESS at existing or previously certified solar sites that have points of interconnection ("POI") to allow winter discharge of the battery either through a Power Purchase Agreement ("PPA") or through a Build Transfer Agreement ("BTA"), or (2) any standalone BESS resource with a transmission interconnection study that is completed or is in progress and requires minimal transmission improvements. For BESS paired with solar, only BESS sized between 50% and 100% of the renewable resource located at the same POI would be considered.

To expedite the solicitation process, the Commission approved the use of the current Independent Evaluator ("IE") overseeing the 2029-2031 All-Source RFP, Accion Group, LLC, for the Winter 27_28 BESS RFP. In addition, the Commission reduced the 120-day requirement between sharing draft documents with Commission Staff and issuing the RFP and reduced the six-month requirement between RFP Service Date and Issue Date. Due to the use of the Commission-approved All-Source RFP documents, no comment period was accommodated for the Winter 27_28 BESS RFP. No Bid Refresh process was used either.

On July 22, 2024, the Company filed the final Winter 27_28 BESS RFP Documents, including copies of the pro forma Winter 27_28 BESS PPA and BTA. The Commission approved the RFP Documents, with minor modifications, on August 8, 2024. Georgia Power issued the

PUBLIC DISCLOSURE

Winter 27_28 BESS RFP on August 9, 2024. Any Company-owned Proposals were required to be submitted by September 13, 2024, with all other bids submitted by September 16, 2024.

During the August 6, 2024, Administrative Session of the Commission, the Commission approved: (i) a motion to remove the Netherlands from the list of restricted countries included in the BESS requirements language; and (ii) an amendment to the motion that in the event of any terrorist action, cyber security, or mechanical failure as a result of sourcing equipment from the Netherlands, the supplier of the material or part will be responsible for any and all cost to Georgia Power and their customers. This language was sought to be changed in the CARES 2023 Utility Scale RFP (“CARES 2023 RFP”) and all other active and future Company RFPs, including the Winter 27_28 BESS RFP. On September 17, 2024, the Commission approved the Company’s Compliance Filing that, among other things, clarified the August 6, 2024 amendment (Item (ii) above) to require that if any cost is caused by a terrorist act, cyber security incident, or mechanical failure that results from any programmable electronic component of a Battery Management System, BESS Controller, or Site Controller sourced from the Netherlands, the counterparty with whom Georgia Power is contracting under the applicable RFP will be responsible for all damages allowed under Georgia law to the Company or its customers. On August 23, 2024, the Company filed revised RFP Documents. The Commission approved the Company’s compliance filing with modification on September 24, 2024.

3. Bid Evaluation

As mentioned previously, Georgia Power accepted submissions through the IE Website from qualified RFP participants from August 9, 2024, through September 13, 2024, for Company-owned Proposals, and September 16, 2024, for all other bids. The Company received offers for 1,380 MW through nine proposals from four unique participants.

Proposals submitted for consideration in the Winter 27_28 BESS RFP were reviewed, evaluated, and ranked by total evaluated cost, and the evaluation results were confirmed and approved by the IE and the Commission Staff. All submissions were selected to the Competitive Tier. Five proposals did not post Bid Security by the required date of November 7, 2024. Of the remaining four proposals, three were Company-owned Proposals, and one Bidder posted Bid Security by the required date. These remaining four proposals moved forward in the evaluation in the Competitive Tier.

One Bid was released on December 28, 2024, because it was paired with a CARES 2023 RFP Bid that had a commercial operation date extending beyond the Winter 2027_2028 BESS RFP commercial operation date requirement. The Bidder intended to grid charge the BESS until the solar facility was built, if awarded a contract. Georgia Power’s intent was to charge the BESS using the solar facility during the first few years of operation until the system could accommodate grid charging ability. Adjusting the commercial operation date for the solar project was not

PUBLIC DISCLOSURE

considered because the Bid was released from further consideration in the CARES 2023 RFP due to Bid price.

As permitted under Section 1.1.1 of the RFP, Georgia Power, after consultation with Staff and the IE, extended the date for determination and notification of the Short List and Reserve List. The IE anticipated an extension of two weeks to April 24th in order to finalize evaluations.

On May 14, 2025, Georgia Power completed its evaluation and analysis of Competitive Tier bids and identified a Short List consisting of a single winning submission to advance toward certification. The submission selected for the Short List was based upon the best value of the portfolio of proposals to the Company's customers and was the only resource that could reasonably achieve the December 1, 2027, required commercial operation date without more than minimal transmission improvements. Throughout the process, the Commission Staff and the IE independently verified the process and steps taken by the Company as the Competitive Tier, Short List, and Reserve List were selected. All proposals on the Reserve List were moved to the Release List on May 22, 2025, due to their inability to achieve the December 1, 2027, required commercial operation date without more than minimal transmission improvements.

4. Twiggs County BESS (200 MW) Construction Information

4.1 Cost-Benefit Analysis

The Commission instructed the Company to procure approximately 300 to 500 MW of BESS resources needed to serve customers during the Winter of 2027/2028. The directive involved issuing a narrowly focused RFP with an expedited timeline. The RFP aimed to secure BESS resources with commercial operation dates no later than December 1, 2027. The Winter 27_28 BESS RFP process adhered to the solicitation, product requirements, regulatory accommodations, and schedule as authorized by the Commission, which granted waivers for specific Commission Rules: 515-3-4-.04(3)(a)(10), 515-3-4-.04(3)(c)(1, 2, 3), 515-3-4-.04(3)(e)(1)(ii, v, vi, vii, ix), and 515-3-4-.04(3)(e)(4)(i, v, vi).

The Company conducted an in-depth economic analysis, including a cost-benefit evaluation, for the four BESS projects that advanced to the Competitive Tier of the RFP process. The RFP evaluation model integrated the costs and schedules outlined in the BESA and EPC agreement provided for each proposal. Consistent with all RFP evaluations, the Company employed a rigorous cost-benefit analysis framework to systematically assess each project's financial and operational impacts by integrating detailed cost projects and implementation timelines. This analysis included a comprehensive review of direct and indirect costs, anticipated benefits, and potential risks associated with each proposal. By leveraging industry-standard and proprietary economic

PUBLIC DISCLOSURE

modeling techniques, the company forecasted the long-term value and viability of the capacity resources, ensuring informed decision-making and strategic alignment.

4.2 Site Selection Analysis

The Company-owned Proposal Team selected the Twiggs County site for its expedited deployment capabilities, primarily attributed to the existing solar facility at this location, which ensures known transmission deliverability. This strategic choice allows the Company to leverage existing infrastructure, thereby eliminating the need for constructing new generator step-up (“GSU”) project-level substations and eliminating potential expenses and long lead time projects associated with interconnection and network upgrades.

4.3 Fuel Use

The Twiggs County solar facility will be the primary fuel source for the Twiggs County BESS facility. The BESS will store the renewable energy during daylight hours and discharge the energy as needed to support grid operations and meet capacity needs. Additionally, the Twiggs County BESS will primarily serve as a cost-effective, dispatchable capacity resource by optimizing energy savings. It will achieve this by shifting the energy from hours with relatively low system marginal cost to hours with relatively high system marginal cost. While it will primarily charge from solar energy, it can also charge from the grid if constraints are not present on the transmission system.

PUBLIC DISCLOSURE

4.4 Estimated Annual Costs

Figure 4.4 below includes estimated annual costs. All costs are thousands of dollars in nominal terms.

Figure 4.4 – Twiggs County BESS Estimated Annual Costs

Year	Estimated Annual Depreciation	Estimated Annual Debt and Equity Financing Costs on Capital Investment	Estimated Annual Income Taxes on Capital Investment	Estimated Fixed O&M	Estimated Insurance	Estimated Property Taxes	Estimated Annual Capital Additions
2025	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2026	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2027	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2028	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2029	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2030	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2031	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2032	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2033	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2034	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2035	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2036	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2037	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2038	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2039	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2040	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2041	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2042	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2043	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2044	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2045	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2046	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
2047	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED

4.5 Estimated Annual Variable Costs and Operational Data

The Twiggs County BESS will serve as a cost-effective, dispatchable capacity resource that will optimize energy savings by shifting the energy from hours with relatively low system marginal cost to hours with a relatively high system marginal cost. The variable costs for the Twiggs County BESS include the cost to charge the battery and losses during charging and discharging. These costs are optimized by charging during low-cost periods and discharging during high-cost periods, although the exact cost to charge, and benefits of discharge, vary based on market conditions.

PUBLIC DISCLOSURE

In addition, the BESS will fulfill a wider array of system and grid requirements beyond the more commonly recognized benefits of capacity value and energy value. BESS can be instrumental in providing cost-effective essential services for grid reliability, particularly operating reserves, leading to reductions in total system operational costs. As the energy mix evolves, these services and the role of BESS will likely become increasingly important in response to intermittent resource penetration and potential carbon pressure.

4.6 Rates of Escalation of Cost

Post in-service capital, insurance, and operation and maintenance (“O&M”) costs that are fixed are escalated per an assumed inflation rate of REDACTED unless otherwise defined in contractual agreements. The inflation rate is based on a forecast of Gross Domestic Product Implicit Price Deflator (“GDPIPD”).

4.7 Total Estimated Annual Average Cost per kWh

The RFP evaluation process involves a comprehensive analysis that consolidates the costs, operational data, and benefits of each RFP bid submission. The process calculates the total net present value (“NPV”) costs per unit of reliable capacity, which serves as the primary metric for ranking the submissions. Throughout the RFP process, detailed information regarding the analysis was provided to the IE and Commission Staff to ensure transparency and informed decision making.

4.8 Equivalent Availability Factors

See Total Estimated Annual Average Cost per kWh section above.

4.9 Capacity Factors and Duty Cycle

See Total Estimated Annual Average Cost per kWh section above.

4.10 Efficiency

The Guaranteed Site Roundtrip Efficiency (“RTE”) through the BESA at commissioning completion is REDACTED.

4.11 Unit Lifetime

The unit lifetime for the BESS is 20 years, and this serves as the basis for both accounting book life and for the engineering design life.

4.12 Estimated Environmental Impact

Other than impacts associated with land use for the new facility described below, Georgia Power does not anticipate that the BESS facility will have any environmental

PUBLIC DISCLOSURE

impacts related to the specific emission, production, or usage data categories outlined in GPSC Rule 515-3-4-.07 (2)(a)(3)(xi).

Georgia Power has conducted a full suite of environmental assessments and surveys for the Twiggs County BESS site. During site development and operations, some intermittent environmental impacts may occur as a result of stormwater runoff due to precipitation. However, these impacts will be regulated by, and in compliance with, applicable state and federal requirements.

During facility operations, no direct air emissions or water usage are expected except as encountered during an emergency or other unplanned event. Some stormwater runoff is expected as a result of direct rainfall, but this will be controlled by measures installed during facility construction and maintained for the life of the facility. Some limited solid waste disposal may occur as a result of normal operations. Battery recycling is expected as the BESS achieve their expected operational lifespan. Ash, scrubber sludge, high- and low-level nuclear waste will not be produced. Spent nuclear fuel will not be created. Approximately 15 acres of land will be used by this BESS project for the facility footprint, interconnection substation and any associated utility tie line(s), which provides adequate space for future augmentation needs.

Required federal, state, and local permitting have been evaluated as provided in the EPC agreement, and applicable requirements will be met at the appropriate times to meet all compliance obligations.

4.13 Lead Time

Lead times for major procurement items and services, including Medium Voltage (“MV”) Switchgear, site control center, Crowder transformer, and substation equipment, the BESS, engineering, and geotechnical work, are detailed in “Attachment C – Twiggs County BESS Activities and Critical Path Schedule TRADE SECRET.”

4.14 Potential Socioeconomic Impacts

Twiggs County BESS will provide additional electric service reliability to Georgia and promote additional regional economic growth and long-term tax base. In addition, and as discussed previously in this application, Twiggs County BESS will support the extraordinary economic growth occurring throughout Georgia. Supporting Georgia’s growth will have both near-term and long-term positive economic impacts on the entire state’s economy and will benefit all Georgia Power customers.

4.15 Special Design Feature

The proposed project will utilize the Tesla Megapack 2 XL, which is a battery storage unit capable of charging and discharging real power and injecting and absorbing reactive power. The system is unique compared to other available BESS in the market

PUBLIC DISCLOSURE

because it arrives at site fully integrated and capable of outputting 480V alternating current (“AC”) power. This integration greatly reduces commissioning timelines and allows the Megapack 2 XL thermal system to operate prior to backfeed being available at the site. The Megapack 2 XL features a modular design for increased energy density and includes multiple inverters per container, making the loss of one inverter negligible to the system’s overall performance. Each 4-hour container possesses a storage capacity of over 3,900 kWh.

4.16 Total Cost Estimate

The development of Twiggs County BESS is estimated to cost approximately REDACTED, which is the total of the engineering, construction, oversight, and associated procurement cost of REDACTED, financing cost of REDACTED, and ad valorem taxes of REDACTED. Further detail on each of these components is provided in the subsections below.

Cost Expenditure Plan

Costs shown are in thousands of nominal dollars.

Figure 4.16 – Twiggs County BESS Cost Expenditure Plan

Category	2025	2026	2027	Total
Land Purchase & Sale Agreement	REDACTED	REDACTED	REDACTED	REDACTED
Planning	REDACTED	REDACTED	REDACTED	REDACTED
Licensing	REDACTED	REDACTED	REDACTED	REDACTED
EPC Contract	REDACTED	REDACTED	REDACTED	REDACTED
BESA Contract	REDACTED	REDACTED	REDACTED	REDACTED
Engineering/Design & Construction	REDACTED	REDACTED	REDACTED	REDACTED
Start-Up	REDACTED	REDACTED	REDACTED	REDACTED
Transmission	REDACTED	REDACTED	REDACTED	REDACTED
Contingency	REDACTED	REDACTED	REDACTED	REDACTED
Total	REDACTED	REDACTED	REDACTED	REDACTED

Descriptions of each category are provided below:

- Land Purchase & Sale Agreement – includes all spend for certified amount
- Planning – Preliminary studies and investigation (“PSI”) and environmental support. The budget for planning 2025 includes funds that were originally spent in 2024.
- Licensing – Not applicable.
- EPC Contract – EPC contract costs.
- BESA Contract – BESA contract cost.
- Engineering/Design & Construction – Internal technical engineering and services, interconnection, process safety management (“PSM”), vendor quality, construction power, information technology (“IT”), onsite security, pre-commercial operation labor and supplies,

PUBLIC DISCLOSURE

supply chain support, project controls, legal, builder's risk insurance, site controller, Prevailing Wage and Apprenticeship ("PWA") review, distribution, and asset management. The budget for E/D & C 2027 includes 2028 spend.

- Start-Up – Test energy and BESA provider support.
- Transmission – Design and construction of project level substation and generation tie-line to Twiggs County interconnection substation.
- Contingency – Contingency. The budget for 2025 includes contingency spend for 2024.

4.17 Major Contracts

The Company will directly purchase the battery systems from Tesla under a BESA, with the EPC contractor responsible for the engineering, design, procurement of balance of system components, civil grading, and on-site equipment installation.

Engineering, Procurement, and Construction

On April 21, 2025, the Company entered into an EPC Agreement with Crowder Industrial Construction, LLC. ("Crowder"). This agreement was executed based on information learned through a comprehensive Supply Chain RFP process. Crowder will bring extensive experience in the engineering and construction of BESS.

As the appointed EPC contractor, Crowder is tasked with the engineering, procurement, and construction services necessary for the design and installation of the BESS at the Twiggs County site. Under the terms of the EPC Agreement, Crowder will deliver all services for a fixed price, adhering to a detailed scope of work and specifications for Twiggs County BESS. The executed EPC Agreement between Georgia Power Company and Crowder is included in Appendix A to this Application.

Battery and Equipment Supply Agreement

On January 30, 2025, the Company finalized a BESA with Tesla for the procurement of an integrated battery energy storage system, the Megapack 2 XL, for deployment at Twiggs County BESS. This agreement was executed following a comprehensive Supply Chain RFP process. Manufactured at Tesla's Megafactory in Lathrop, CA, the basic storage component in the Tesla Megapack 2 XL is the lithium-iron phosphate ("LFP") battery cell. These cells are assembled into battery modules and integrated into the Megapack units. Megapack's modular design allows for easy scalability, connecting multiple units to meet project requirements. Each unit can store over 3.9 MWh of energy. The system arrives on-site fully integrated with initial testing completed, ready to deliver alternating current ("AC") electrical output.

Safety is crucial in the Megapack design. Each unit undergoes rigorous testing to ensure safe operation. Tesla's advanced Battery Management System ("BMS") monitors and regulates temperature, voltage, and state-of-charge, ensuring optimal performance.

PUBLIC DISCLOSURE

Tesla’s technology is well-proven and reliable with grid-scale batteries operational in over 65 countries.

The agreement includes a warranty that safeguards against equipment defects and guarantees against energy capacity degradation. In addition to the BESA, the Company will enter into a Long-Term Commitments Agreement (“LTCA”), which will provide an enhanced guaranteed energy retention capacity curve, as well as a Site RTE guarantee for each year of operation.

The executed BESA between Georgia Power Company and Tesla is included in Appendix B of this Application.

4.18 Costs Associated with Construction

All construction costs are included in Figure 4.16 found in the above section titled “Twiggs County BESS Cost Expenditure Plan.”

AFUDC, Ad Valorem, and Sales Tax

Pre-commercial operation allowance for funds used during construction (“AFUDC”), ad valorem, and sales tax costs are shown in thousands of nominal dollars in the table below. Sales tax costs are estimated as zero for the BESA and EPC purchases due to applicable sales and use tax exemptions. An estimate of sales tax for items that are not exempt from sales and use tax, such real property materials and fixtures, is not available.

Figure 4.18 – Twiggs County BESS AFUDC, Ad Valorem, and Sales Tax Estimates

	AFUDC	Ad Valorem	Sales Tax
2025	REDACTED	REDACTED	REDACTED
2026	REDACTED	REDACTED	REDACTED
2027	REDACTED	REDACTED	REDACTED
Total	REDACTED	REDACTED	REDACTED

Estimated Annual Capital Additions

Estimated annual capital additions over the life of the resource are included in Figure 4.4 found in the above section titled “Twiggs County BESS Estimated Annual Costs.”

Decommissioning/Dismantlement Costs

Estimated decommissioning and dismantlement costs assumed for the BESS resource are REDACTED. This value represents an estimated cost at the end of the life of the BESS.

PUBLIC DISCLOSURE

Cost of Dedicated Transmission and Distribution Facilities

A cost comparison of projects similar by type, design, and capacity was completed in the RFP evaluation process.

4.19 Cost Comparison of Similar Projects

A cost comparison of projects similar by type, design, and capacity was completed in the RFP process.

4.20 Activities and Critical Path Schedules

“Attachment C – Twiggs County BESS Activities and Critical Path Schedule TRADE SECRET” details the activities and critical path schedule.

4.21 Lead Times for Major Procurement Items

See Section 4.13, “Lead Time,” above for applicable information on lead times for major procurement items.

4.22 Description of Legal Relationships

There have been previous contractual relations wherein one or more suppliers involved in this project furnished equipment and/or services to one or more affiliates of the Southern Company. Amendment 1 was established to amend the existing Twiggs County Solar PPA to incorporate the installation and operation of a Twiggs County BESS at the point of existing solar facility. Other than these supply and services agreements, no other legal or contractual relations exist among the parties.

4.23 Other Information

The Company has no additional information to include at this time.

4.24 Cost Recovery

Georgia Power proposes to recover the costs associated with the construction of the Twiggs County BESS in rate base and will reflect the operating expenses associated with the units in its retail cost of service. Regulatory treatment for these units will be consistent with the current treatment of Georgia Power’s existing owned retail generation facilities.

5. Certification Requirements

5.1 2023 IRP Update Impacts

Georgia Power sought up to 500 MW of BESS resources through the Winter 27_28 BESS RFP as approved in the 2023 IRP Update Final Order. The Company’s evaluation of the submissions in the Winter 27_28 BESS RFP resulted in the selection of a single 200

PUBLIC DISCLOSURE

MW BESS resource and utilized input data and assumptions consistent with the Budget 2024 planning assumptions. By selecting this project, Georgia Power is maximizing the value customers will receive based on the characteristics of the bids the competitive market delivered into the RFP.

The 2025 IRP was filed on January 31, 2025, in Docket No. 56002, which reflects the Company's updated generation portfolio and capacity needs. The Capacity Needs as identified in the Company's 2025 IRP, consistent with the February 2025 Load and Energy Forecast filed on June 9, 2025, and as revised to include the CARES 2023 PPAs and the Twiggs County BESS facility, are provided in Section 5.2 below.

5.2 Revised Near –Term Action Plan

Tables 5.2.1 and 5.2.2 below represent Georgia Power's projected summer and winter capacity needs for 2025-2044. The tables are based on the same information as Table 8.1B from the 2025 IRP Main Document in Docket No. 56002 but are updated to incorporate (i) the results of the Expedited Winter 27_28 BESS RFP, (ii) the results of the CARES 2023 US RFP, and (iii) the Company's February 2025 Load and Energy Forecast, which was provided with Georgia Power's 2025 IRP Rebuttal Testimony on June 9, 2025.

PUBLIC DISCLOSURE

Table 5.2.1 – Georgia Power Projected Summer Capacity Need (MW)

Year	Peak Demand (MW) (A)	Owned Generating Capacity (MW) (B)	Purchased Generating Capacity (MW) (B,C)	Dispatchable DSOs (MW) (B)	Total Capacity (MW) (B)	Capacity Required to Meet GPC Target (MW)	GPC Reserve Margin (%) (D)
2025	17,716	13,868	7,410	729	22,007	(999)	24%
2026	18,480	14,708	7,522	735	22,965	(1,053)	24%
2027	19,971	16,028	7,522	739	24,290	(609)	22%
2028	21,981	16,801	7,446	739	24,986	1,190	14%
2029	24,373	16,802	6,981	742	24,525	4,500	1%
2030	25,934	16,808	5,322	746	22,875	8,009	-12%
2031	27,081	16,728	5,535	751	23,015	9,235	-15%
2032	27,789	16,728	5,535	754	23,018	10,075	-17%
2033	28,289	16,728	5,480	759	22,966	10,722	-19%
2034	28,588	16,728	5,465	763	22,956	11,088	-20%
2035	28,778	16,260	3,748	766	20,775	13,496	-28%
2036	28,918	12,416	3,620	770	16,806	17,630	-42%
2037	29,188	12,416	3,461	777	16,654	18,104	-43%
2038	29,385	12,416	3,237	783	16,436	18,558	-44%
2039	29,638	11,768	3,237	789	15,794	19,501	-47%
2040	29,795	11,768	2,928	803	15,498	19,983	-48%
2041	30,150	11,768	2,876	813	15,457	20,448	-49%
2042	30,542	11,768	2,866	824	15,458	20,913	-49%
2043	30,946	11,768	2,861	835	15,464	21,388	-50%
2044	31,419	11,768	2,858	846	15,472	21,943	-51%

Notes

(A) Territorial Load requirements less non-dispatchable demand-side options (“DSOs”).

(B) Values reflect effective load carrying capability (“ELCC”).

(C) Includes territorial and imported power purchases.

(D) Does not consider planning reserve sharing. Reflects GPC's Target Reserve Margin resulting from a System Target Reserve Margin of 19.50% (2025-2027) and 20% (2028 and beyond).

PUBLIC DISCLOSURE

Table 5.2.2 – Georgia Power Projected Winter Capacity Need (MW)

Year	Peak Demand (MW) (A)	Owned Generating Capacity (MW) (B)	Purchased Generating Capacity (MW) (B,C)	Dispatchable DSOs (MW) (B)	Total Capacity (MW) (B)	Capacity Required to Meet GPC Target (MW)	GPC Reserve Margin (%) (D)
2024/2025	16,236	14,306	5,913	649	20,868	(637)	29%
2025/2026	16,750	15,164	6,012	652	21,829	(957)	30%
2026/2027	17,808	16,545	6,242	656	23,443	(1,253)	32%
2027/2028	19,501	16,981	6,503	656	24,140	262	24%
2028/2029	21,696	17,452	5,723	659	23,834	3,315	10%
2029/2030	23,517	17,453	5,758	661	23,873	5,555	2%
2030/2031	24,769	17,398	3,769	665	21,832	9,162	-12%
2031/2032	25,590	17,374	3,769	667	21,810	10,212	-15%
2032/2033	26,160	17,374	3,714	670	21,758	10,978	-17%
2033/2034	26,436	17,374	3,710	673	21,757	11,324	-18%
2034/2035	26,623	16,904	2,393	675	19,972	13,342	-25%
2035/2036	26,706	12,939	1,812	676	15,427	17,992	-42%
2036/2037	26,923	12,939	1,745	681	15,365	18,325	-43%
2037/2038	27,170	12,939	1,395	703	15,037	18,963	-45%
2038/2039	27,548	12,290	1,395	711	14,397	20,076	-48%
2039/2040	27,851	12,290	1,035	720	14,045	20,806	-50%
2040/2041	28,222	12,290	1,015	728	14,033	21,283	-50%
2041/2042	28,605	12,290	1,012	737	14,040	21,755	-51%
2042/2043	29,028	12,290	1,010	748	14,048	22,276	-52%
2043/2044	29,446	12,290	1,010	758	14,058	22,790	-52%

Notes

(A) Territorial Load requirements less non-dispatchable DSOs.

(B) Values reflect ELCC.

(C) Includes territorial and imported power purchases.

(D) Does not consider planning reserve sharing. Reflects GPC's Target Reserve Margin resulting from a System Target Reserve Margin of 25.50% (2025-2027) and 26% (2028 and beyond).

PUBLIC DISCLOSURE

5.3 Proposed Ratemaking Treatment of Costs

The 2023 IRP Update Final Order approved the Stipulation that set forth a supply-side plan and included the creation of the Winter 27_28 BESS RFP. See Section 4.24 above for applicable information on cost recovery.

6. Conclusion

In the 2023 IRP Update Final Order, the Commission concluded that “the Stipulation is a well-reasoned and balanced resolution of the Company’s 2023 IRP Update that will provide significant benefits to Georgia Power’s customers, [including] customer protections, the assurance of downward pressure on customer rates, and the continued resiliency and reliability of the Company’s electric system.”¹ Consistent with the 2023 IRP Update Final Order, Georgia Power submits this application to request the expedited certification of a 200 MW Company-owned BESS resource at Twiggs County.

The 200 MW BESS resource was selected as the best cost offer in the Winter 27_28 BESS RFP that could meet the expedited commercial operation date sought in the RFP. However, capacity needs still remain based on the 2025 IRP. The Company is investigating additional resource options to meet additional customer needs in the Winter of 2027/2028 and will bring any such resources to the Commission for certification at such time as they have been secured and are available for a certification filing. Georgia Power conducted the RFP process in accordance with the Commission’s 2023 IRP Update Final Order and RFP rules (to the extent not altered or waived by the 2023 IRP Update Final Order), which ensured fair and equal treatment of all bidders. The IE and Commission Staff were involved throughout the process—from the development of the RFP Documents through the evaluation of bids and selection of the Competitive Tier and Short List. The use of the IE Website for questions and comments regarding this RFP further ensured that the process was not only fair and equitable, but also transparent to all participants. The evaluation process involved a thorough analysis of all the proposals submitted for consideration into this Winter 27_28 BESS RFP. In sum, the project selected for certification represents the best cost proposal for meeting the expedited and narrowly tailored Winter 27_28 BESS RFP target identified by the Commission.

For all the foregoing reasons discussed in detail above, to ensure cost-effective electric service to its customers and the continued diversification of energy resources in its portfolio, and consistent with the Commission’s findings in the 2023 IRP Update Final Order, the Company requests the Commission grant a certificate of public convenience and necessity for the Company-Owned Proposal BESS project and ratemaking treatment of the Winter 27_28 BESS RFP project costs.

¹ 2023 IRP Update Final Order at 9.

PUBLIC DISCLOSURE

APPENDIX A

**TWIGGS COUNTY BESS –Engineering, Procurement, and Construction
Agreement (EPC) – REDACTED**

PUBLIC DISCLOSURE

APPENDIX B

**TWIGGS COUNTY BESS – Battery and Equipment Supply Agreement
(BESA) – REDACTED**

PUBLIC DISCLOSURE

APPENDIX C

**TWIGGS COUNTY BESS – Activities and Critical Path Schedule –
REDACTED**

PUBLIC DISCLOSURE

APPENDIX D

**TWIGGS COUNTY BESS Project – Twiggs County Solar PPA Amendment
(Amendment 1) – REDACTED**