

IN RE:	GEORGIA POWER COMPANY’S 2023	)	DOCKET NO. 55378
	INTEGRATED RESOURCE PLAN	)	
	UPDATE, CERTIFICATION OF THE	)	
	POWER PURCHASE AGREEMENT	)	
	BETWEEN GEORGIA POWER	)	
	COMPANY AND MISSISSIPPI POWER	)	
	COMPANY, CERTIFICATION OF THE	)	
	POWER PURCHASE AGREEMENT	)	
	BETWEEN GEORGIA POWER	)	
	COMPANY AND SANTA ROSA	)	
	ENERGY CENTER LLC, AND	)	
	AMENDED CERTIFICATION OF THE	)	
	RESIDENTIAL THERMOSTAT	)	
	DEMAND RESPONSE DEMAND SIDE	)	
	MANAGEMENT PROGRAM	)	

**DIRECT TESTIMONY
AND EXHIBITS
OF
COLIN T. FITZHENRY**

FEBRUARY 15, 2024

BEFORE THE
GEORGIA PUBLIC SERVICE COMMISSION

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**DIRECT TESTIMONY
OF COLIN T. FITZHENRY**

I. QUALIFICATIONS AND SUMMARY

A. Qualifications

Q. Please state your name and business address.

A. My name is Colin T. Fitzhenry. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q. What is your occupation and by whom are you employed?

A. I am a Senior Consultant in the field of public utility regulation with the firm of Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory consultants.

Q. Please describe your educational and professional experience.

A. My educational and professional experience are detailed in my Exhibit___(CTF-1).

Q. On whose behalf are you testifying?

A. I am offering testimony on behalf of the Federal government (Department of Defense and all other Federal Executive Agencies, or “DoD-FEA”).

B. Summary

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address Georgia Power Company’s (“Georgia Power” or “Company”) modeling efforts to support it’s 2023 Integrated Resource Plan Update (“2023 IRP Update). I will also address the resource selection process utilized by Georgia Power to develop its 2023 IRP Update resource plan.

The fact that I do not address certain aspects of the 2023 IRP Update proposals should not indicate agreement with any specific element of such proposals.

1 **Q. Please summarize your recommendations and conclusions.**

2 A. My conclusions and recommendations can be summarized as follows:

- 3 • The capacity accreditation of resource options the Company includes in its Integrated
4 Resource Plan (“IRP”) modeling does not accurately reflect the capacity contribution
5 of either solar or thermal generating resources. Georgia Power should utilize the
6 Effective Load Carrying Capability studies it performs for variable renewable
7 resources and incorporate more appropriate analyses of thermal unit performance to
8 correctly model the contribution of all potential generating resources being considered.
9 This will better inform the Company’s selection of resources in its resource plan.
- 10 • Georgia Power did not update its Reserve Margin Study for the 2023 IRP Update, and
11 the target reserve margin may not accurately reflect the Company’s capacity obligation.
12 As a result, Georgia Power may be overstating its need for capacity resources.
- 13 • Georgia Power’s proposed 2023 IRP Update resource plan presents risk of cost
14 increases if new environmental regulation increases the cost of operating fossil fuel
15 generating resources.
- 16 • Georgia Power’s Updated Economic Analysis of Capacity Resources limited the
17 Aurora production cost modeling to only six capacity resources.¹ As a result, Georgia
18 Power potentially misses an opportunity to identify alternative lower cost generating
19 resources to fulfill its capacity obligation.
- 20 • Georgia Power has not demonstrated through rate impact studies that its proposed
21 resource plan will put downward pressure on the rates of its existing customers.

22 **C. IRP Update Summary**

23 **Q. Please provide an overview of Georgia Power’s IRP process.**

24 A. Since the IRP Act of 1991, the Georgia Public Service Commission (“Commission”) has
25 overseen the resource planning process for Georgia Power. Georgia Power periodically
26 updates its IRP to account for changes to forecasted load, generating resources, system
27 reliability and environmental regulation.²

¹ Georgia Power, Updated Economic Analysis of Capacity Resources, 2023 Integrated Resource Plan Update, page 5.

² Georgia Power 2022 Integrated Resource Plan, Chapter 1, page 1.

1 The last full IRP filed with the Commission was the Georgia Power 2022 IRP (Docket
2 No. 44160). In the 2022 IRP, Georgia Power updated its seasonal Target Reserve Margins
3 for the short-term (2022-2024) and long-term (2025-2041) planning periods based on the
4 Company's 2021 Reserve Margin Study.³ In addition, the Company updated its
5 supply-side strategy in its 2022 IRP to recommend the retirement of eleven of its coal and
6 oil generating units between 2022 and 2028.⁴ The Company chose to retire these resources
7 because economic analysis did not support continued operation due to their forecast of low
8 natural gas prices, modest load growth, environmental risk and substantial renewable
9 penetration.⁵ To accommodate the retirement of the coal and oil units, the Company
10 proposed to add 2,356 megawatts ("MW") of capacity from natural gas power purchase
11 agreements ("PPAs") procured through the Company's 2022-2028 Capacity Request for
12 Proposal ("RFP").⁶ The Company is also planning for an additional 6,000 MW of new
13 renewable resources by 2035.⁷ At the time of the 2022 IRP filing, Georgia Power
14 determined that it did not need to procure additional capacity until 2029.⁸

15 **Q. Do you have any concerns about how Georgia Power developed its capacity expansion**
16 **plan in its 2022 IRP filing?**

17 A. Yes. When Georgia Power used the Aurora production cost model to develop its capacity
18 expansion plan it did not assign the appropriate level of accredited capacity to the modeled
19 generating resources. According to Company witness Jeffrey Grubb, the Company used a
20 0% capacity accreditation for solar resources, and only modeled them as energy resources.⁹
21 In addition, the capacity accreditation for thermal resources was modeled at 100%. This
22 capacity accreditation does not accurately reflect the capacity contribution of either solar
23 or thermal resources. With respect to solar, it is also inconsistent with the Company's own
24 Effective Load Carrying Capacity ("ELCC") study provided in the 2022 IRP.

³ Georgia Power 2022 Integrated Resource Plan, Chapter 1, page 2.

⁴ Georgia Power 2022 Integrated Resource Plan, Chapter 1, page 5.

⁵ Georgia Power 2022 Integrated Resource Plan, Chapter 11, page 73.

⁶ Georgia Power 2022 Integrated Resource Plan, Chapter 1, page 5.

⁷ Georgia Power 2022 Integrated Resource Plan, Chapter 1, page 6.

⁸ Georgia Power 2022 Integrated Resource Plan, Chapter 10, page 68.

⁹ Exhibit___(CTF-2), Docket No. 55378 Transcript, Wednesday January 17, 2024, pages 0584 & 0585.

1 **Q. Do you have the same concerns regarding how the Company conducted modeling in**
2 **the 2023 IRP Update?**

3 A. Yes. Company witness Mr. Grubb indicated in the hearing addressing Direct Testimony
4 that in the 2023 IRP modeling, the Company continued to model generic solar resources
5 assuming they provide no capacity value.

6 **Q. Did the Company perform a study to determine the appropriate accreditation value**
7 **for solar resources?**

8 A. Yes, in its 2022 IRP the Company provided a Study of Renewable Capacity Values using
9 the ELCC Methodology in the Southern Company System (“ELCC Study”) that indicated
10 the accredited capacity contribution that wind, solar, and battery energy storage resources
11 could be expected to provide at various levels of adoption in the market. That study showed
12 that even in high adoption scenarios (where there was 3,000 MW of incremental solar
13 installed), the accredited capacity value of solar would be expected to be 25% in non-winter
14 months and 5% in winter.¹⁰

15 **Q. How does modeling solar resources as an energy only resource limit Georgia Power’s**
16 **ability to develop a least-cost resource plan?**

17 A. Solar resources provide significant contributions to offsetting the summer peak demand
18 and provide limited, but non-zero, capacity contributions in the winter. By assigning a 0%
19 capacity accreditation to solar resources in its modeling, the Company’s modeling is both
20 inaccurately valuing the resource and inconsistent with the Company’s own ELCC study.
21 In addition, assigning a 100% capacity accreditation for thermal resources does not
22 accurately reflect the forced outage rates of thermal generators, which has the potential to
23 reduce their availability during periods of peak demand. As a result, the model’s economic
24 evaluation of solar and thermal resources may be inaccurate and result in the selection of a
25 resource plan that is not least-cost or the best possible fit for the needs of Georgia Power’s
26 customers.

¹⁰ Table IV-2: “Wind and Solar Resource ICE Factors Using the CWFT,” 2022 IRP ELCC Study, Technical Appendix 1, page 10.

1 **Q. How would you recommend the Company improve its IRP modeling for future IRPs?**

2 A. Georgia Power should be required to continue performing studies to determine the ELCC
3 of potential generating resources being modeled, and be required to utilize the findings of
4 those studies in its capacity expansion modeling. This will better inform the Company's
5 selection of resources in its resource planning process.

6 **Q. Has this recommendation been made before?**

7 A. Yes, and in fact, the Company is now ordered to utilize ELCC in its IRPs. The 2022 IRP
8 Order Adopting Stipulation mentions that "The Commission finds and concludes that
9 ELCC is the industry standard..." and "In its next IRP, and any upcoming RFPs issued
10 before the next IRP, the Company agrees to use the ELCC Methodology to determine the
11 renewable resource capacity values."¹¹

12 **Q. Why did Georgia Power file a 2023 IRP Update?**

13 A. The Company filed the update to respond to changes in its load forecast that have occurred
14 since the 2022 IRP was approved by the Commission. More specifically, Georgia Power's
15 updated load forecast includes the addition of numerous new large load customers that the
16 Company has procured in the intervening months following the 2022 IRP.¹² Georgia
17 Power claims that this extraordinary growth in load requires the Company to either procure
18 or build new supply and demand-side capacity resources to meet the increases in
19 customers' demand and energy. Georgia Power claims that the updated load forecast
20 creates a winter capacity deficit of 1,875 MW as soon as December 2026.¹³

21 **D. Capacity Need**

22 **Q. How did Georgia Power determine that it will have a capacity deficit?**

23 A. In support of the 2023 IRP Update, Georgia Power prepared the 2023 IRP Update Load
24 and Energy Forecast ("2023 IRP Update Load Forecast"). The 2023 IRP Update Load
25 Forecast provides a twenty-year forecast of energy sales and peak demand to determine the

¹¹ Public Interest Staff's Proposed Order Adopting Stipulation" July 29, 2022. Fact No. 32.

¹² Direct Testimony of Grubb, Valle, Evans, and Bush, page 9 of 56, lines 8-10.

¹³ Georgia Power, 2023 Integrated Resource Plan Update, Figure 4: Georgia Power Winter Capacity Needs.

energy and capacity needs of the Company. The summer and winter peak demands are then compared to the total available capacity of all resources to determine a net capacity position. Based on this analysis, the Company determined that it will experience a capacity deficit by the winter of 2026/2027.

Q. What is Georgia Power’s current level of available capacity to meet its forecasted peak demand?

A. Georgia Power’s available capacity is the sum of its owned generating capacity, purchased generating capacity, and dispatchable demand-side resources. In 2027, the Company’s total available accredited capacity is about 21.8 gigawatts (“GW”) in winter and 23.2 GW in the summer of 2027. The Company has 1.4 GW less available accredited capacity in the winter to meet its peak demand because Georgia Power has almost 2 GW less purchased generating capacity in the winter of 2027 than the summer. The Company’s net capacity position, which is the difference between its planning reserve margin (“PRM”) and available capacity, is shown in Table 1 below.

Year	Winter				Summer				Seasonal Change (Winter - Summer)			
	Peak Demand	25% Planning Reserve Margin	Available Capacity	Net Capacity	Peak Demand	15% Planning Reserve Margin	Available Capacity	Net Capacity	Peak Demand	Planning Reserve Margin	Available Capacity	Net Capacity
2024	15,283	19,104	19,980	877	16,757	19,271	19,871	600	(1,474)	(167)	110	277
2025	15,947	19,934	21,196	1,262	17,383	19,990	21,941	1,951	(1,435)	(56)	(745)	(690)
2026	17,256	21,570	21,296	(274)	18,804	21,624	22,080	455	(1,548)	(55)	(784)	(729)
2027	18,928	23,660	21,785	(1,875)	20,633	23,729	23,211	(518)	(1,705)	(69)	(1,425)	(1,357)
2028	19,751	24,688	22,088	(2,601)	21,561	24,796	23,234	(1,562)	(1,811)	(107)	(1,146)	(1,039)
2029	20,551	25,688	21,357	(4,331)	22,445	25,812	23,400	(2,412)	(1,895)	(124)	(2,043)	(1,919)

Source: 2023 IRP Update, Appendix, Georgia Power Territorial Base Case Load vs. Existing Capability Table

Q. Did Georgia Power procure more purchased generating capacity for the summer than the winter because it has a higher summer capacity obligation?

A. No, not according to the Company. Despite the fact that the Company experiences it’s highest peak demand in the summer months, and is forecasting that it will continue to be

1 summer peaking,¹⁴ the Company projects that it will require approximately the same
2 amount of available capacity for both seasons. This is because the PRM, also referred to
3 as the target reserve margin, is significantly higher in winter than summer. The Company
4 proposes a summer target reserve margin of 15.28% over the long-term and 14.78% in the
5 short-term. Its proposed winter target reserve margin will be 25.18% over the long-term
6 and 24.69% over the short-term.

7 **Q. How does the PRM impact the Company's seasonal net capacity position?**

8 A. As shown on Table 1, in the year 2027, the forecasted peak demand is about 1,700 MW
9 greater in the summer than the winter; however, the PRM, which informs the capacity
10 obligation, is only about 70 MW greater. Because Georgia Power uses a higher PRM for
11 the winter than the summer, the Company's capacity obligations end up nearly the same
12 for both seasons. Table 1 illustrates the impact of the higher PRM and compares the net
13 capacity position of Georgia Power in the winter to the summer. However, despite the fact
14 that Georgia Power requires the same levels of capacity for both seasons, its winter net
15 capacity position is a 1,875 MW deficit.

16 **Q. Did Georgia Power update its Reserve Margin Study for the 2023 IRP Update?**

17 A. No. Georgia Power is still relying on its 2021 Reserve Margin Study used in the 2022 IRP
18 to determine the PRM for the summer and winter months.

19 **Q. Was the Company's selected winter reserve margin explicitly endorsed in the**
20 **2022 IRP proceeding or its concluding Order?**

21 A. No. In the Order approving the Stipulation in the 2022 IRP, the Commission noted that
22 the matter was not fully settled; rather the Company was allowed to continue using the
23 26% winter reserve margin "until such time as a winter TRM is agreed to between PIA
24 Staff and the Company and approved by the Commission," and that the "use of the
25 26% winter TRM for planning purposes is not an endorsement by Stipulating parties of

¹⁴ 2023 IRP Update Load and Energy Forecast, pages 3-5.

1 that TRM, and no Stipulating Party is foreclosed from proposing an alternative winter TRM
2 in a future case.”¹⁵

3 **Q. Is it clear to you why there was no explicit endorsement of a particular reserve margin**
4 **in the Order?**

5 A. I was not involved in the 2022 proceeding; however, the Order implies that there was no
6 need to act on the TRM at the time because there were no near term capacity additions
7 needed at the time. With the filing of the 2023 IRP Update this is obviously no longer the
8 case, so the matter of whether a 26% winter reserve margin is appropriate seems to continue
9 to be an open question.

10 **Q. Would it have been best practice for the Company to update its reserve margin study**
11 **in the 2023 IRP Update filing?**

12 A. Yes. The appropriate reserve margin for a planning area is highly dependent on the
13 magnitude and shape of load on the system at peak demand periods. Given that the
14 Company is filing this IRP in anticipation of significant incremental load, much of which
15 is attributed to high load factor customers, the shape of Georgia Power’s overall load may
16 be changing. This means that the 2021 study may no longer accurately reflect the
17 appropriate capacity margin for the company to provide reliable service.

18 **E. IRP Update Modeling**

19 **Q. What resources is the Company requesting approval for in its IRP Update?**

20 A. In total Georgia Power is requesting approval for potentially up to 3,380 MW of
21 supply-side capacity resources.¹⁶ The Company’s proposed resource plan consists of:
22 (1) a PPA with Mississippi Power Company (“Mississippi Power”) to procure power from
23 its existing generating assets; (2) a PPA with Santa Rosa Energy Center LLC for capacity
24 and energy from a natural gas-fired combined cycle (“CC”) plant located in Pace, Florida;
25 (3) potential acquisition of an additional ownership interest in an existing generating asset

¹⁵ Public Interest Staff’s Proposed Order Adopting Stipulation” July 29, 2022. Fact No. 16.

¹⁶ Total Capacity = 750 MW (Mississippi Power PPA) + 230 MW (Santa Rosa PPA) + 1000 MW (BESS or BESS/Solar Hybrid) + 1,400 MW (3 Duel-Fuel CTs at Plant Yates) = 3,380 MW.

1 within the Southern Company footprint; (4) battery energy storage systems (“BESS”) at
2 existing solar facilities, such as Company-owned facilities at military bases; (5) a new
3 BESS co-located with a new solar facility at a site with existing transmission
4 interconnection facilities; (6) three simple-cycle combustion turbines (“CTs”) at Plant
5 Yates; and (7) expansion of distributed energy resource (“DER”) and demand response
6 (“DR”) programs.

7 **Q. Do you have any concerns about 2023 IPR Update resource plan?**

8 A. Yes. The resource plan is heavily reliant on fossil-fuel fired generating resources, which
9 are subject to fuel price volatility. In addition, there is added risk that new environmental
10 regulation could impose additional cost on the operation of these resources. The
11 Mississippi Power PPA is expected to be filled, at least in part, with coal-fired generating
12 resources that would have otherwise been retired or remarketed outside of system reserve
13 sharing¹⁷ if not for this PPA with its affiliate company. Ostensibly, those resources were
14 proposed for retirement because economic analysis determined they were no longer cost
15 effective to keep online relative to Mississippi Power’s needs.

16 **Q. How did Georgia Power select these resources to meet its capacity and energy**
17 **obligations?**

18 A. Georgia Power relied on its internal knowledge of existing generating resources with
19 available capacity and self-build options that could be built prior to the winter of
20 2026/2027. The Company also conducted a Request for Information (“RFI”) to gather
21 market information regarding the availability of existing and planned Capacity Resources
22 for the capacity need identified for years 2026 through 2028, the timeframe being
23 addressed in the Company’s 2023 IRP Update.¹⁸ However, there were limitations to the
24 RFI; Georgia Power limited responses to existing facilities of 100 MW or greater.
25 In addition, the Company did not conduct an all-resource RFP prior to filing the 2023 IRP
26 Update to determine the alternative generating resources available. Lastly, as discussed in

¹⁷ Georgia Power, 2023 Integrated Resource Plan Update, page 13.

¹⁸ Georgia Power, 2023 Request for Information for Capacity Resources – Summary of Results, December 4, 2023.

1 greater detail in the testimony of my colleague, Christopher C. Walters, it did not appear
2 to solicit broad-based customer feedback to determine the magnitude of renewable
3 resources needed to fulfill customer sustainability goals.

4 **Q. What modeling was performed by Georgia Power to support its 2023 IRP Update?**

5 A. The Company prepared the 2023 IRP Update Load Forecast to account for the new load
6 acquired by Georgia Power. Georgia Power continued to rely on models from its 2022 IRP
7 filing in the 2023 IRP Update. The Company did not update its Reserve Margin Study or
8 its ELCC Study for the 2023 IRP Update. In addition, Georgia Power utilized Aurora
9 production cost modeling in its Updated Economic Analysis of Capacity Resources to
10 evaluate the Net Present Value (“NPV”) of six capacity resources under various
11 sensitivities.

12 **Q. How is the Aurora production cost model typically utilized in the Georgia Power IRP**
13 **process?**

14 A. In its 2022 IRP, Southern Company used Aurora to simultaneously model its three
15 operating subsidiaries, and then assign capacity to individual subsidiaries depending on
16 which operating area has a deficit. The combination of new resources assigned to each
17 subsidiary is the utility’s System expansion plan. The System expansion plan identifies
18 the capacity and energy additions that inform the type of resources that are most
19 economical within a particular timeframe for the given assumptions. In addition, the
20 Aurora production cost model is used to evaluate the different generation technologies.
21 The Aurora model considers all possible combinations of capacity additions, on a yearly
22 basis, that satisfy the Company’s target reserve margin constraints. The resulting
23 combination of candidate resources with the smallest production and capital cost over the
24 planning horizon represents a least-cost plan, given the assumptions used.¹⁹ As a result of
25 the modeling performed in the 2022 IRP filing, the Company determined that the most

¹⁹ Georgia Power, 2022 Integrated Resource Plan, Chapter 10, page 63.

1 economical approach to long-term planning would be to retire approximately 3,500 MW
2 of coal and oil generating resources and double the amount of renewables.²⁰

3 **Q. Does the modeling the Company provided directly correlate to what it is proposing in**
4 **this resource plan?**

5 A. It appears it does not. For example, the Mid-Gas Zero Carbon (“MG0”) case forms the
6 Base Case for the Company’s Capacity Expansion Plan, but the resources the Company is
7 actually proposing the Commission approve are not aligned with the resources included in
8 that modeling. The Company speaks to this in the Direct Testimony hearing, where it says
9 that it used the modeling to inform its proposed plan, but the plan is not directly a reflection
10 of modeling. I would note that this is not uncommon; every planner must use their
11 professional judgment in selecting a proposed plan based on modeling and other factors.
12 However, it is clear that the proposed Plan deviates from the modeling and it is not clear
13 that the Company performed a full assessment of costs and risks associated with the Plan
14 it actually is proposing.

15 **Q. What would a fulsome analysis include?**

16 A. For customers and stakeholders to understand the costs and risks of the proposed plan more
17 fully, the Company would present a Base Case set of estimated capital and operating costs
18 (including both fixed and variable operations and maintenance costs); compare it to a set
19 of sensitivities to reasonably assess the risk that the future of key inputs looked different
20 than the Base Case (for example, high and low fuel prices, different technology price
21 outlooks, different load levels, different capacity prices, or different future environmental
22 costs); it would assess the selected plan’s impact to customer rates and/or bills
23 quantitatively; and it would assess the environmental impacts of the plan.

²⁰ S&P Global, Georgia Power’s resource plan would retire 3,500 MW, double renewables, January 31, 2022.

1 **Q. How can customers be assured the 2023 IRP Update resource plan is a least-cost best**
2 **fit plan without a fulsome analysis of costs?**

3 A. In my opinion, they cannot. In particular, it does not appear the Company conducted or
4 provided a rate or bill impact analysis in the record of this IRP filing. The Company
5 repeatedly stated in its Direct Testimony that the proposed plan will put downward pressure
6 on rates for existing customers, due to increased load anticipated; however, it has not
7 provided any analysis of expected rate impact on customers resulting from the plan.

8 **Q. Do you have any additional concerns with the Company's modeling in this IRP?**

9 A. Yes. In response to questioning during Direct Testimony, Company witness Mr. Grubb
10 stated repeatedly that the Company has not performed an evaluation of how this plan
11 affects the Company's overall energy mix.²¹ Both Southern Company and its customers
12 have ambitious sustainability goals that include decarbonization of their energy sources.
13 Without an assessment of how this plan will affect the underlying mix of energy resources,
14 neither Georgia Power itself, nor its customers, have a clear expectation of how this plan
15 affects their ability to achieve these goals long-term. This proposed plan is also affecting
16 the operations of its other operating companies, both from a cost and emissions perspective,
17 in a way that should be assessed and reported transparently. In sum, the Company's alleged
18 lack of modeling regarding the energy mix resulting from this plan is a significant
19 weakness in its analysis, and, therefore, its ability to be responsive to customer cost,
20 reliability and environmental needs.

21 **F. Conclusion**

22 **Q. What are your recommendations?**

23 A. I recommend that Georgia Power take the following actions: (1) update its Reserve Margin
24 Study to ensure that the 2023 IRP Update accurately reflects the Company's capacity
25 obligations; (2) utilize Aurora production cost modeling to compare potential resource
26 expansion plans to ensure that the least-cost resource plan is being proposed; and (3) utilize
27 the existing, or conduct a new, ELCC study of potential generating resources so that the

²¹ Exhibit ___ (CTF-2), Docket No. 55378 Transcript, Wednesday January 17, 2024, pages 0552 & 0553.

1 Company is accurately reflecting the accredited capacity value the resource provides to
2 Georgia Power and supports its ability to supply firm service to its customers.

3 **Q. Does this conclude your testimony?**

4 **A. Yes, it does.**

BEFORE THE

GEORGIA PUBLIC SERVICE COMMISSION

IN RE:	GEORGIA POWER COMPANY'S	)	DOCKET NO. 55378
	2023 INTEGRATED RESOURCE	)	
	PLAN UPDATE	)	

EXHIBITS

OF

COLIN T. FITZHENRY

ON BEHALF OF THE

UNITED STATES DEPARTMENT OF DEFENSE AND ALL OTHER

FEDERAL EXECUTIVE AGENCIES

FEBRUARY 15, 2024

Qualifications of Colin T. Fitzhenry

Q. Please state your name and business address.

A. Colin T. Fitzhenry. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q. Please state your occupation.

A. I am a Senior Consultant in the field of public utility regulation with the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q. Please summarize your educational background and experience.

A. I received a Bachelor of Science in General Engineering from the University of Illinois Urbana-Champaign, which provided a broad background in mechanics and control systems. Prior to joining BAI, I served as an Engineer Intern for Dynegy Inc., where I was involved with generation operation at both Vermilion Power Station and Tilton Power Station.

Since joining BAI in January 2013, I have provided assistance in several regulated utility matters. Some of these include resource planning, transmission planning, fuel cost recovery, environmental compliance plans, mergers, asset transfers, electrical and commodity price forecasting, and power procurement.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and assumed the utility rate and economic consulting activities of Drazen Associates, Inc., founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff. Our staff includes consultants with backgrounds in accounting, engineering, economics, finance, mathematics, computer science and business.

Brubaker & Associates, Inc. and its predecessor firm have participated in over 700 major utility rate and other cases and statewide generic investigations before

1 utility regulatory commissions in 40 states, involving electric, gas, water, and steam
2 rates and other issues. Cases in which the firm has been involved have included more
3 than 80 of the 100 largest electric utilities and over 30 gas distribution companies and
4 pipelines.

5
6 While the firm has always assisted its clients in negotiating contracts for utility
7 services in the regulated environment, increasingly there are opportunities for certain
8 customers to acquire power on a competitive basis from a supplier other than its
9 traditional electric utility. The firm assists clients in identifying and evaluating
10 purchased power options, conducts RFPs and negotiates with suppliers for the
11 acquisition and delivery of supplies. We have prepared option studies and/or
12 conducted RFPs for competitive acquisition of power supply for industrial and other
13 end-use customers throughout the United States and in Canada, involving total needs
14 in excess of 3,000 megawatts. The firm is also an associate member of the Electric
15 Reliability Council of Texas.

16
17 In addition to our main office in St. Louis, the firm also has branch offices in Corpus
18 Christi, Texas; Louisville, Kentucky and Phoenix, Arizona.

STATE OF GEORGIA

Georgia Power Company's 2023)
Integrated Resource Plan Update) Docket No. 55378
)

Wednesday, January 17, 2024

JASON SHAW, Chairman
TIM ECHOLS, Vice-Chairman
FITZ JOHNSON, Commissioner
LAUREN "BUBBA" MCDONALD, Commissioner
TRICIA PRIDEMORE, Commissioner

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1 can it be grid charged?

2 A (Witness Grubb) It could be grid charged, if we
3 needed that. There are some periods of time we expect it
4 will be grid charged.

5 Q What percentage of Georgia Power's current
6 energy mix is fossil gas?

7 A (Witness Grubb) I have that. We actually had
8 it in the filing.

9 So it is 45 percent of capacity. I'm not sure
10 energy -- it's slightly higher in 2022. I don't have --

11 Q Would you accept 48?

12 A (Witness Grubb) Yeah. On energy?

13 Q Yes.

14 A (Witness Grubb) Yes, 48.

15 Q That was from your 2023 Facts and Figures by
16 the Numbers published online?

17 A (Witness Grubb) No. That's correct. I think
18 that's what I have here, too.

19 Q All right. So if the Commission approves the
20 resources proposed in this 2023 IRP Update, what will
21 that percentage be for the winter of 2027-2028?

22 A (Witness Grubb) I don't have those numbers. I
23 don't think I've run. Not that aspect of it. I don't
24 have them here.

25 Q Will it increase or decrease Georgia Power's

1 reliance on gas?

2 A (Witness Grubb) This filing?

3 Q Yes.

4 A (Witness Grubb) So it depends on how much we
5 can dispatch the CTs. And as Mr. Bush has said, if we
6 do, it would be a more economic gas usage than what the
7 system is now. So we don't have those numbers, but it
8 won't drastically increase.

9 Q All right. Well, this kind of gets back to the
10 conversation that was started earlier. Many, many times
11 in the last two days we heard that this plan will put
12 downward pressure on rates. But I think we got beyond
13 that earlier today and we started talking about other
14 bill impacts. Because people -- you know, customers
15 ultimately pay a bill, not just a rate.

16 Is it true that over a quarter of residential
17 customer bill is the fuel rider?

18 A (Witness Grubb) I haven't -- subject to check.
19 I don't remember what the latest fuel rates are.

20 Q And another roughly 8 percent on the EECR?

21 A (Witness Grubb) Subject to check.

22 Q Thank you.

23 Have you analyzed the bill impacts from this
24 request for -- especially for residential customers?

25 A (Witness Grubb) Not to bills because that

1 let you off the hook.

2 A (Witness Grubb) I believe we filed them in the
3 DR. I just can't remember which DR since there has been
4 270 of them filed.

5 Q But there weren't any hybrid projects that were
6 modeled as a resource in the capacity expansion model;
7 right?

8 A (Witness Grubb) No. When you say "hybrid,"
9 I'm assuming you mean solar-plus storage?

10 Q Solar-plus storage, yes.

11 A (Witness Grubb) No. What Aurora -- what the
12 expansion plan model is doing is it is looking at solar
13 from an energy production standpoint, and it is looking
14 at storage from a capacity standpoint. So it is not --
15 it is not dependent on location, if they are located
16 together or not. It is looking simply at solar providing
17 energy value and storage providing capacity model.
18 Whether you model them as a hybrid or not, it wouldn't
19 really change the outcome at all.

20 Q Well, so does solar not get a -- some sort of
21 an accredited value for Aurora, or is it set at zero?

22 A (Witness Grubb) Not generic solar.

23 Q It is set at zero in the model?

24 A (Witness Grubb) It is set at zero. So if
25 we -- once we know solar resources through an RFP, they

1 would get it, but a generic solar does not.

2 Q And so --

3 A (Witness Grubb) Because again, it is being
4 added for energy value.

5 Q So the company performed an effective load
6 carrying capacity analysis for solar, though; right?

7 A (Witness Grubb) To use on projects that we
8 have project profiles for in evaluating RFPs, that's
9 correct.

10 Q But you didn't include that evaluation in the
11 model for capacity expansion?

12 A (Witness Grubb) That is my recollection
13 because, again, it is looking at adding it for energy
14 resources. And it does allow it to be added before we
15 have a capacity need, so it does do that.

16 Q All the batteries that are added in the
17 model -- well, all the resources in the model are modeled
18 as company-owned resources; is that correct?

19 A (Witness Grubb) So as we have always done,
20 Commissioners, not knowing the results of RFPs, we have
21 always shown the avoided cost or the cost of a capacity
22 is the company's cost to build, which is a standard
23 utility practice.

24 So when you are talking about a generic
25 expansion plan, you model that cost to build, because