



Bin 10230
241 Ralph McGill Boulevard, NE
Atlanta, GA 30308-3374

August 30, 2024

Ms. Sallie Tanner
Executive Secretary
Georgia Public Service Commission
244 Washington Street, SW
Atlanta, GA 30334-5701

RE: Georgia Power Company's Thirty-First Semi-annual Construction Monitoring Report for Plant Vogtle Units 3 and 4; Docket No. 29849

Dear Ms. Tanner:

Enclosed for filing is Georgia Power Company's Thirty-First Semi-annual Construction Monitoring Report for Plant Vogtle Units 3 and 4 pursuant to O.C.G.A. § 46-3A-7(b), Georgia Public Service Commission ("Commission") Rule 515-3-4-.07(2)(b), and the Commission's Final Order in Docket No. 27800. As construction of these units is now complete, this filing will be the last Vogtle Construction Monitoring Report filed with the Commission.

There is no trade secret information included in this Thirty-first Semi-annual Report.

Should you have any questions, please call me at 404-506-7106.

Sincerely,

A handwritten signature in black ink that reads "Jeremiah C. Haswell".

Jeremiah C. Haswell
Director, Regulatory Affairs
jhaswell@southernco.com

Vogle
UNITS 3 & 4

Thirty-First Semi-annual Vogle Construction Monitoring Report

August 2024 • Docket No. 29849



VOGTLE UNITS 3 & 4

*Plant Vogtle is the Largest Generator
of Clean Energy in the United States*

 **Georgia Power**

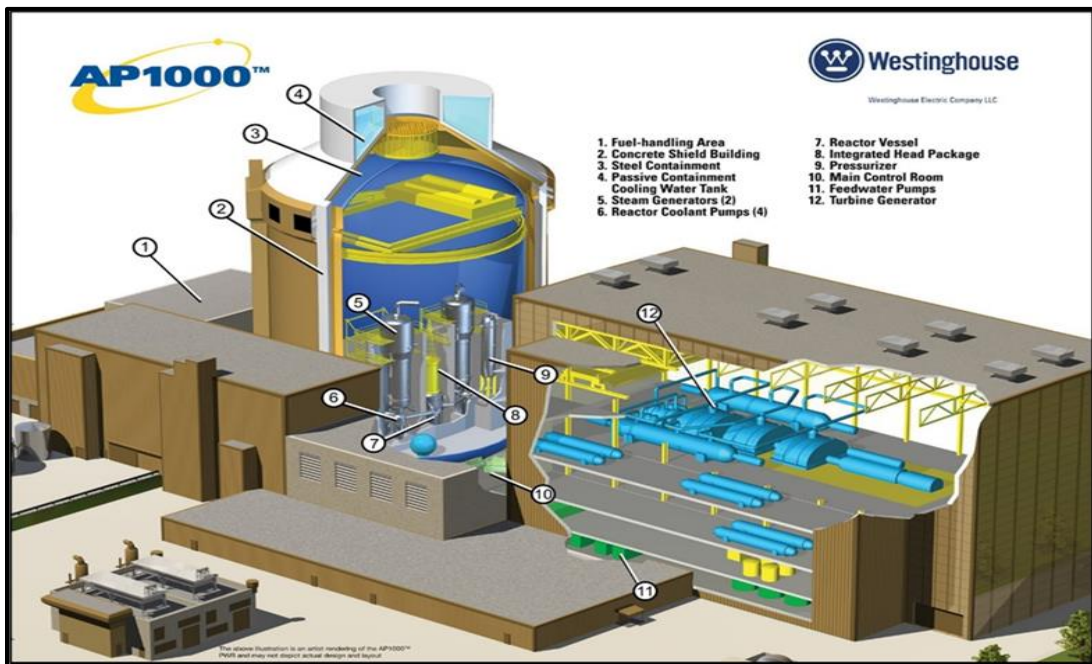
Vogle Units 3 and 4 Thirty-First Semi-annual Construction Monitoring Report

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Unit 4 Nuclear and Turbine Islands

As of March 2024



EXECUTIVE SUMMARY

- **Georgia Power Company (“Georgia Power” or the “Company”) and Southern Nuclear Operating Company (“SNC”), as agent for Georgia Power, are committed to safety, quality, and compliance.**

Site leadership continues to cultivate and enhance a culture that promotes safety first. Through June of 2024, the site continued to experience a low number of recordable incidents. SNC remains committed to enhancing the safety-first culture and has transitioned the site to the SNC fleet safety program as construction is now complete.

During the reporting period of January 1, 2024, through June 30, 2024 (the “Reporting Period”), SNC did not receive any Notice of Violation and remains in favorable standing with the NRC’s Reactor Oversight Process (the “ROP”). Through the ROP program, the NRC communicates plant performance and assessments to the public.

- **Unit 3 continues to operate successfully.**

Unit 3 has operated well for the first year of operation with a net capacity factor of approximately 95%. Unit 3 underwent one planned 5-day maintenance outage at the end of January 2024 and had one 7-day forced outage in July 2024 to address an AP1000 feedwater valve vulnerability that has already been remedied on Unit 4. Both outages were completed successfully, and the Unit is continuing to operate at 100% power, supplying clean, safe, reliable and affordable energy to Georgia’s grid during the high temperature summer months. Unit 3’s first cycle performance continues to demonstrate that the plant was built with a focus on safety and quality first, helping ensure the Unit will be a benefit to all Georgians for generations to come.

- **Unit 4 declared Commercial Operation.**

Vogtle Unit 4 successfully completed all required start-up, pre-operational and power ascension testing to declare Commercial Operation on April 29, 2024. Successful Unit 4 testing included synchronization to the grid and power ascension testing at the 25%, 50%, 75%, 90%, and 100% reactor power levels, which confirmed the performance of Unit 4 according to design.

- **Georgia Power incurred \$76 million of capital expenditures during the Reporting Period. These costs will not be recovered from customers.**

Table 1 – 31st VCM Expenditures

<i>Dollars in Millions</i>	
Original EPC & EPC Scope Change	\$ -
Interim Payments & Liens	0
Site Construction Management	49
Owners Costs	16
Ad Valorem Tax	10
Transmission Interconnection	0
Test Fuel Offsets	1
Total 31 st VCM Expenditures	<u>\$ 76</u>

- **Georgia Power presents \$76 million in capital expenditures for review only and does not request the Commission take any action.**

In the Commission’s January 31, 2024 Order Adopting Stipulation regarding the Company’s Application to Adjust Rates to Include Reasonable and Prudent Plant Vogtle Units 3 and 4 Costs in Docket No. 29849 (“Vogtle Prudence Order”), the Company agreed not to request recovery of any costs exceeding \$7.562 billion. Thus, the Company presents the \$76 million incurred during the Reporting Period for Commission review only.

RESPONSES TO STIPULATED QUESTIONS

- 1. The reasons for any additional change in the estimated costs and schedules of the Units since the process began.**

The total Project capital cost forecast remains approximately \$10.2 billion. The details of the current total Project capital cost forecast are provided in Table 1.1, which also reflects the capital investment through June 30, 2024, actual-to-forecast variances, and total financing costs during construction. Total financing costs include amounts collected pursuant to the NCCR tariff and amounts accrued through AFUDC.

Table 1.1

Vogtle 3 & 4 Project Georgia Power Company Cost - Subject to Commission Verification and Approval Project To Date Through Period Ending June 30, 2024						
(Millions of \$) Construction & Capital Cost	VCM 30 (\$ millions)	Total Current Forecast (\$ millions)	Variance (\$ millions)	Actual to Date (\$ millions)	Budget to Date (\$ millions)	Variance (\$ millions)
Original EPC ⁽¹⁾	\$ 3,198	\$ 3,198	\$ -	\$ 3,198	\$ 3,198	\$ 0
Interim Payments & Liens	411	411	(0)	410	411	(1)
Site Construction Management						
Engineering Contractor	668	674	6	667	667	(0)
Procurement	1,564	1,566	3	1,551	1,547	4
Contract Construction	3,166	3,163	(4)	3,160	3,160	(1)
Construction Support & Project Management	978	947	(31)	937	977	(40)
Total Site Construction Management	6,375	6,350	(25)	6,316	6,352	(36)
Owners Cost	1,232	1,228	(4)	1,225	1,228	(4)
Ad Valorem	336	333	(3)	329	336	(7)
Transmission Interconnection	63	62	(0)	62	63	(1)
Test Fuel Offsets	(4)	(1)	3	(1)	(4)	3
	1,626	1,622	(4)	1,614	1,623	(9)
Total Construction & Capital Cost	11,611	11,581	(30)	11,538	11,583	(46)
Toshiba Parent Guarantee Payment, net of customer refunds	(1,492)	(1,492)	-	(1,492)	(1,492)	-
Unallocated Contingency Not Included Above	36	52	16	-	-	-
Construction Monitor	33	33	-	28	33	(5)
Total Construction & Capital Cost, including unallocated contingency and Construction Monitor Costs, net of Parent Guarantee ⁽³⁾	10,188	\$ 10,174	\$ (14)	\$ 10,074	\$ 10,125	\$ (50)
Amounts Absorbed by GPC ⁽³⁾	\$ (2,626)	\$ (2,612)		(2,625)	(2,625)	-
Approved Prudency Stipulation ⁽²⁾	7,562	7,562		7,449	7,500	(50)
Project Schedule Financing						
Return on CWIP in Rate Base ⁽⁴⁾		2,983		2,983	2,983	(0)
AFUDC - Accrued on CWIP Above Original Certified Cost		438		438	439	(1)
AFUDC - Accrued through Dec 2010 and Related Return		109		109	109	-
Total Project Schedule Financing		\$ 3,530		\$ 3,530	\$ 3,532	\$ (2)
Total Capital Cost and Financing		\$ 13,704		\$ 13,604	\$ 13,656	\$ (52)

Footnotes:

1. Includes Original EPC contract payment milestones and EPC Scope Change.

2. \$7.562 billion is the Total Construction & Capital Cost approved by Georgia Public Service Commission (Order dated December 19, 2023).

3. Above excludes approximately \$559 million of costs associated with the cost-sharing and tender provisions of the joint ownership agreement that Georgia Power will not seek recovery for from retail customers.

4. NCCR will only be collected on the certified capital cost of \$4.418 billion per the January 3, 2017 Order Adopting Stipulation and VCM 17 Order.

Note: Details may not add to totals due to rounding.

2. The status of the Company's loan guarantee application at the DOE and to the extent that the application is granted, then the Company shall also report on the impact it has or would have on the final expected in-service cost of the Units.

Table 2 – DOE Loan Guarantee		
Available	Received	Remaining
\$5.13 billion	\$5.13 billion	\$0

Georgia Power has borrowed all \$5.13 billion related to Vogtle Units 3 and 4 costs through the DOE Loan Guarantee Agreement and a multi-advance credit facility among Georgia Power, the DOE, and the Federal Financing Bank.

The DOE loan guarantee did not have a material impact on the in-service cost of Vogtle Units 3 and 4, but did provide benefits to customers through access to lower credit spreads during construction and operation. Georgia Power customers are estimated to save approximately \$513 million, which has already been secured through draws against the credit facility.

3. The status of Quality and Compliance, Procurement, Engineering, Construction and Operational Readiness.

TOTAL PROJECT PERCENT COMPLETE

Unit 4 declared Commercial Operation as of April 29, 2024, which marks the completion of the construction, testing, and start-up of Vogtle Units 3 and 4.

QUALITY AND COMPLIANCE

During the Reporting Period, Georgia Power provided oversight of the Project while SNC directed and provided guidance to contractors and actively addressed issues and concerns as the final direct



Main Control Room

construction activities were completed. SNC also continued quality oversight of the ITP organization and Site Operations to help achieve and maintain compliance with laws, regulations, and Project licensing documents. SNC Quality Assurance (“QA”) teams monitored the safety and quality of work being conducted through audits and field surveillances.

ENGINEERING

During the Reporting Period, the overall Engineering organization continued to support the final start-up activities, as well as site finalization. The start-up Engineering organization continued to focus on processes, programs, and the incorporation of lessons learned from Unit 3 to the start-up testing on Unit 4. The ITP Design Engineering team focused on resolution of challenges identified during the testing evolutions in support of successful completion of start-up testing for Unit 4. All permanent engineering organizations and programs are running and following fleet procedures.

PROJECT PERFORMANCE

During the Reporting Period, Unit 4 progressed through power ascension testing up to 100% at various output levels. Unit 4 completed all start-up testing in support of the Commercial Operation declaration.

Project Milestones

Table 3.2 shows the dates for the completed major milestones for Unit 4.

	Table 3.2 –Project Milestones	
	Milestone	Q2 2024 Risk Adjusted Schedule Dates
Unit 4	Start Power Ascension Testing	February 2024 (A)
	Initial Criticality	February 2024 (A)
	Initial Sync to Grid	March 2024 (A)
	100% Rated Thermal Power	April 2024 (A)
	Commercial Operation	April 2024 (A)

UNIT UPDATES

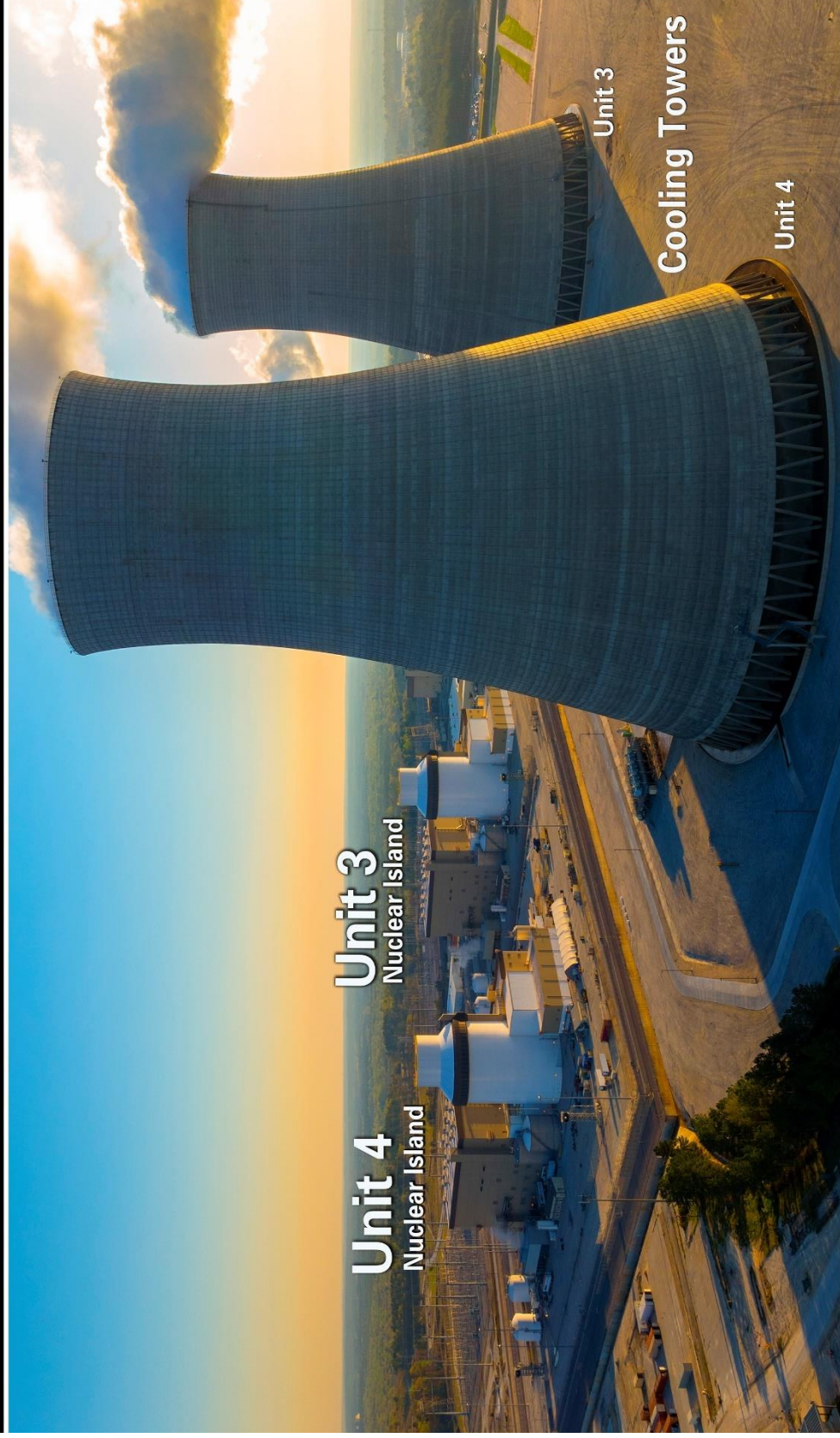
Unit 3

Since declaring Commercial Operation, Unit 3 operated continuously for 180 days prior to a brief, 5-day planned maintenance outage that was successfully completed early in the first quarter 2024. Unit 3 also had one 7-day forced outage in July 2024 which addressed an AP1000 feedwater valve vulnerability. Unit 3 continues to operate and prepare for its first refueling outage expected in the fourth quarter 2024.

Unit 4

During the Reporting Period, Unit 4 achieved initial criticality; this occurs when the nuclear chain reaction in the reactor was both initiated and became self-sustaining. After achieving initial criticality, the Project team performed testing leading up to the initial synchronization of Unit 4 generator to the power grid, which generated electricity for the first time on March 1, 2024. After successful synchronization to the electric grid, the Site Operations team performed additional testing at several reactor power plateaus including 25%, 50%, 75%, 90% and 100%. Unit 4 declared Commercial Operation on April 29, 2024, and is expected to operate as a clean, safe, reliable, and affordable energy source for the state of Georgia for the next 60 to 80 years.

Vogtle 3&4 - March 20, 2024



Glossary of Abbreviations	
103(g)	10 C.F.R Part 52.103(g)
DOE	Department of Energy
HFT	Hot Functional Testing
I&C	Instrumentation & Controls
ICN	ITAAC Closure Notifications
ITAAC	Inspection, Test, Analysis, and Acceptance Criteria
ITP	Initial Test Program
NRC	Nuclear Regulatory Commission
ROP	Reactor Oversight Process
SNC	Southern Nuclear Company
VCM	Vogtle Construction Monitoring