Gas-Fired Power Plants for Data Centers Will Raise Bills for Georgians

An Analysis by Public Service Commissioner Peter Hubbard

Executive Summary

Georgia Power Company (GPC) has pledged that "Residential customers **are not subsidizing** data center growth" (their emphasis). In December 2025, the Georgia Public Service Commission approved Georgia Power's request to add nearly 10,000 MW of new gas-fired power plants and battery storage, primarily to serve data centers. About 60 percent of it burns gas, including three new combined-cycle gas turbine (CCGT) units:

- Plant Bowen Units 7 and 8, Bartow County: 1,482 MW
- Plant Wansley Units 10 and 11, Heard County: 1,453 MW
- Plant McIntosh Unit 12, Effingham County: 757 MW

In February 2026, Commissioner Hubbard moved to decertify these gas units because CCGTs require both pipeline capacity and fuel, making them more expensive to operate over the life of the plant than solar, battery storage and other options available today. These CCGT units will directly increase the cost to produce electricity in Georgia and add carbon emissions that also have a cost. The motion failed.

To better illustrate the costs to consumers, this analysis used ReEDS, the public grid-planning model developed by the U.S. Department of Energy's national laboratory, to compare two portfolios for the years 2030 to 2050. One requires 3,625 MW of new CCGT units in Georgia, approximately equal to GPC's current plans for CCGT units. The other lets the model choose the lowest-cost resources. The CCGT requirement is the only rule that differs between the models. Left free to choose, the model builds more solar, more battery storage and smaller gas "peaker" units instead.

The portfolio with the CCGTs costs $8 billion more across the region modeled (SERTP), even after counting revenue from selling surplus power to neighboring utilities. The costs are incurred in Georgia, where the plants are built and where GPC customers pay for them over a 45-year life; until 2075. The benefits don't necessarily stay in Georgia, because the grid is planned and dispatched as a regional system. For that reason, and because counting the net cost across the region is the most conservative way to measure it, that measure was chosen.

Now compare the $8 billion net cost increase to Georgia Power's promise of $15 in downward pressure on average monthly residential bills for three years (2029 to 2031). That totals $1.35 billion, or about $540 per household, and it is not a guaranteed rate cut. In present value, the added cost of the CCGTs is more than three times the pledged household benefit, and it also exceeds GPC's larger estimate of benefits for all customers. In other words, the company's promise of future benefit is much smaller than the costs being incurred to build new CCGT power plants for data centers in Georgia.

The code, assumptions and full results, including interactive charts and a spreadsheet, are published at www.peterforgeorgia.com/analysis. Georgia Power does not publish its modeling.

The Bottom Line: Building CCGT gas power for data centers instead of clean power will increase the cost of electricity for Georgians. GPC's promise of three years of relief against forty-five years of payments leaves billions in savings and lower emissions on the table.

Key Results

Higher System Cost. Forcing CCGT capacity into Georgia raises the cost of serving system load across the region by $8 billion in the years 2030 to 2050 (nominal dollars). On a NPV basis, this additional cost is $4.1 billion, more than three times the present value of the pledged benefit, $1.25 billion from three years of $15 downward pressure. It also exceeds the $2.85 billion in benefits Georgia Power projects for all customers in 2029 through 2031. Neighboring utilities can buy some of the resulting surplus energy, which offsets part of the higher system cost. For context, building and running the CCGTs in Georgia costs $29 billion over 2030 to 2050. That is the plants' total cost, not the difference between scenarios. These units are expected to run at least 45 years, and this study stops at 2050. PSC staff estimated that the full package of nearly 10,000 MW could cost customers $50 to $60 billion over its life.

More CO2 Emissions. Forcing the CCGT capacity into Georgia raises regional carbon dioxide emissions by an average of 2 million metric tons each year from 2030 to 2050, or 42 million metric tons in total. Emissions increase more in Georgia, by about 4 million metric tons per year on average, but are partly offset as displaced generation shifts across state lines. In 2040, the forced CCGT portfolio emits 5.8 million metric tons more carbon dioxide in Georgia than the cost-optimized portfolio. If a modest $30 per ton carbon pricing is included, the price tag rises by more than $1 billion over the period.

Cost-Optimized Capacity = More Solar and Storage. This analysis forced 3,625 MW of new CCGT capacity into Georgia by 2031, where it remains for the study period. The only change imposed on the model was that requirement. Without it, the model's own cost-optimized portfolio carries, on average, 1,850 MW more solar power and 800 MW more battery storage, along with 2,100 MW more simple-cycle combustion turbines (CTs). CTs are still gas-fired but operate much less often than CCGT units. The CTs could be replaced with more battery storage and solar, but at higher cost.

Results are Robust to Reliability. ReEDS is coupled with the Probabilistic Resource Adequacy Suite (PRAS) to ensure system reliability, measured as Expected Unserved Energy (EUE) under one part per million of annual load. In both scenarios, the worst year reached 0.15 parts per million EUE, one-seventh of the allowable level. Stressful days with high load and low solar output are identified by PRAS and dispatched by ReEDS in each modeled year, and modeled stress days were increased beyond the SERTP default to ensure robust results.

Market Context

GPC broke ground at Plant Wansley in April 2026 and at Plant Bowen in July 2026, and its latest quarterly report shows the first unit at each plant coming online in late 2029 and the second in mid-2030. As of June 30, 2026, the company had recorded about $4.4 billion in spending against roughly $19.5 billion certified for its new generation projects. Plant McIntosh Unit 12 has not broken ground. It is scheduled for late 2030 and is still awaiting air permits from the Georgia Environmental Protection Division. GPC's permit application also covers a second new unit at McIntosh that the PSC has not approved.

In February 2026, Georgia Power's parent company, Southern Company, closed a federal loan package of up to $26.5 billion for gas, nuclear, hydropower, battery storage and transmission projects in Georgia and Alabama. The company estimates the lower interest rate will save customers about $7 billion over 30 years. A cheaper loan for the wrong power plant is still the wrong power plant, and potential savings from lower debt obligations were not included in this analysis.

Georgia Power has told the PSC it can delay or cancel projects it doesn't need. It should start with Plant McIntosh Unit 12. For Bowen and Wansley, Georgia Power should report what it would cost to stop compared with what it will cost to finish and run them, now, while stopping can still save customers money. Before any more gas capacity is approved, customers should see the full bill impact.

Conclusion

New gas-fired power plants for data centers will increase the cost of electricity in Georgia compared with lower-cost solar power, battery storage and other options. Georgia Power's pledge to put $15 of downward pressure on monthly bills for just three years is smaller than the additional cost of building combined-cycle gas plants by at least a factor of three. This analysis concerns only the fundamental costs to build and operate the plants themselves. Additional savings on fuel costs, debt obligations, and carbon pricing were omitted, though they are expected. Further, the analysis covers 2030-2050. A full lifecycle comparison through 2075 would result in additional savings.

Assumptions and Benchmarks

This analysis assumes the overnight capital cost of a new combined-cycle gas turbine in Georgia is between $1,700 per kW (EPC contractor-build) and $2,400 per kW (self-build). New CCGT units also incur a fixed O&M cost of $2,000 per MW-week, including pipeline costs, and a variable O&M cost of $2 per MWh, plus delivered fuel costs that begin at $4 per MMBtu in 2030 and rise to $9 by 2050 (nominal). The CCGT heat rate is 6,700 Btu per kWh. Lower gas prices would narrow the cost gap and higher prices would widen it. The $8 billion figure also prices carbon emissions at zero. As a benchmark, the northern Indiana utility NIPSCO uses $3,500 per kW for the build cost of a CCGT in its 2026 resource plan public advisory meeting materials (October 2026, page 58). Accordingly, this analysis is conservative, and costs could be higher.

Model Description

Modeling was performed with ReEDS, the open-source capacity expansion model developed by the U.S. Department of Energy's national laboratory (formerly NREL, now the National Laboratory of the Rockies). Anyone can run it. This analysis used the Georgia CES fork, branch GA_IRP. Results reflect two scenarios defined in cases_georgia.csv: SERTP_gpc, the cost-optimized counterfactual, and SERTP_gpc_force, which forces 3,625 MW of new combined-cycle capacity into Georgia. The two scenarios are identical in all respects except the forced-capacity requirement.

The analysis used a modified version of ReEDS branched from the public repository (ReEDS-Model/ReEDS) at commit 62f6381, dated June 23, 2026. Four sets of modifications were made. First, a new constraint (eq_newcapforce) was added to require a minimum level of cumulative new capacity investment by technology, state and year; this is the mechanism used to force Georgia Power's planned combined-cycle additions into the model. When the associated switch is disabled, the constraint is inactive and model behavior is identical to public ReEDS. Second, current estimates for capital cost, fixed O&M and heat rate for new combined-cycle capacity in Georgia replaced the default NREL ATB 2024 values, phased in from 2026 to 2029. Third, a one-line defect in the public code's representative-period clustering was corrected; it prevented clustering at the balancing-area level in subset-region runs. Fourth, reporting templates were added to produce Georgia, Southern Company and SERTP results.

No existing model equation, cost assumption or default switch value was otherwise altered: all changes to the model's GAMS source are additions (61 lines added, none removed), and the clustering fix is the only line of existing model code modified. The model reflects the 2025 federal law that ended solar and wind tax credits early. It does not add costs for federal restrictions on foreign-sourced batteries.