

STATE OF GEORGIA

**BEFORE THE
GEORGIA PUBLIC SERVICE COMMISSION**

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In Re: Georgia Power Company’s) **Docket No. 55378**
2023 IRP Update)
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POST-HEARING BRIEF OF GEORGIA SOLAR ENERGY ASSOCIATION (“GA SOLAR”)

GA Solar respectfully submits its Post-Hearing Brief to the Georgia Public Service Commission (“Commission”) and pursuant to the Commission’s 2023 Procedural and Scheduling Order in that above referenced docket.

Introduction

The Company has demonstrated that Georgia is experiencing an extraordinary amount of economic growth and the need to address the significant energy needs associated with this economic growth to maintain system reliability for all customers. The rate of economic development and speed of which the corresponding load growth is needed underscore the need for the Company to mobilize a wide array of resources now to meet customer demand and maintain system reliability.

Through current and proposed DER programs, and existing relationships with third party providers, the Company already possesses the operational capacity needed to implement a Bring Your Own Device (BYOD) pilot program now rather than waiting until the 2025 IRP.

Therefore, it is prudent and necessary for the Company to implement, as part of this IRP Update, a residential and small commercial solar and battery BYOD pilot program that will provide grid reliability and capacity benefits. By acting now to develop this pilot program, the Company will have access to an additional clean, affordable, and modular capacity resource to meet growing energy demands and gather critical data to inform system planning in the 2025 and 2028 Integrated Resource Plans. This pilot program will also give the Company additional operational experience to better understand the full range of services that customer-owned batteries can provide. The pilot program could be included as part of the 500 MW of battery storage resources approved under the stipulated agreement between the Company and Public Interest Advocacy Staff.

Recommendations

GA Solar recommends that the Commission direct Georgia Power to develop a behind-the-meter residential and small commercial solar and battery BYOD pilot program and bring a proposal to the Commission for approval within 180 days of the conclusion of this proceeding.

This proposal should be filed in the current docket and should include, at a minimum, the following provisions:

- Procure a minimum of 10,000 existing and new solar plus battery customers to participate in a closed pilot program.

- A hybrid compensation structure with both upfront and ongoing compensation based on actual system performance, with the level of ongoing compensation locked in for a term of at least 5 years. The exact level of compensation should be determined jointly by the Company and the Commission using a similar methodology as the DCO-1 tariff, which allocates 75% of the projected program value to participating customers. The Company may propose higher incentives for customers located in areas of grid stress, if justified by cost-effectiveness testing.
- A maximum of 60 events per year, with a maximum duration of 3 hours per event.
- The use of the battery's inverter for the purpose of verifying performance, as opposed to relying on the installation of a secondary utility meter.
- Eligibility for multiple battery manufacturers, with a pathway for new manufacturers to become eligible.
- Consumer protections, including a standard disclosure form, mandatory installer training, advance event notifications, and the ability to opt out of events (which will impact the ongoing compensation payment).
- The ability for participants in the BYOD tariff to participate in other utility programs.
- An assessment of the capabilities, costs, compatible battery technologies, and integration timelines for one to three DERMS platforms or aggregators
- An administrative cost estimate.

- Proposed terms and conditions for participants.
- Any other supporting policy changes that should be considered such as system size limits under RNR be removed for battery connected solar.
- Development of planning targets and metrics related to capacity offset of an expanded program in 2025-2028.

GA Solar recommends that Georgia Power hold at least two collaboration meetings with staff and interested intervenors prior to finalizing its proposal. The first such meeting shall be within 90 days of the date of this order. The collaboration meeting should include evaluation of effective BYOD programs in operation in the United States (e.g., the Rocky Mountain Power's WattSmart Batteries program and the Green Mountain Power Bring Your Own Device tariff).

Discussion

Massive Load Growth Forecast and Need to Act Now

GA Solar accepts the Company's contention regarding the extraordinary amount of economic development happening in Georgia and the corresponding amount of load growth needed to meet the forecasted demand and maintain system reliability for customers. In fact, since the 2023 IRP Update was filed in October of 2023, the Company claims, "the economic development pipeline has continued to grow and has now expanded to more than 21,000 MW." (2023 IRP Update Rebuttal Testimony Page 4, Line 23 through Page 5, Line 1). Moreover, since the filing of this IRP Update in October of 2023, the Company has stated that customers representing 2,173 MW of large new load have accelerated their plans putting more pressure on the Company to meet this growing demand. The Company has also emphasized that waiting

until 2025 to address the expected surge in demand is not an option to continue to reliably serve customers and meet the state's energy needs.

Throughout this proceeding, the Company has repeatedly stressed the urgency of the near-term capacity need, with a deficit arising as early as Winter 2025/2026. Although the Company has expressed they are very confident in what they have planned in this IRP Update in order to meet the projected load growth, the Company acknowledges that it is possible it will be unable to meet such demand if circumstances outside the Company's control impact its ability to meet that capacity (2024.03.27 [55378] Transcript_GPC Rebuttal Hrg.pdf, Page 312, Lines 5-7).

The Company has proposed two new distributed energy resource (DER) programs, alongside broadening its current residential thermostat demand response program. These initiatives are integral components of a comprehensive collection of vital capacity resources, aimed at delivering cost-effective and dependable electric power or beneficial demand response to our customers. Yet in limiting enrollment to only commercial and industrial customers (for the DCO-1 and DCL-1 tariffs) and leveraging only one residential technology type (for the Thermostat DR program), the Company's proposal does not reflect the full potential value of customer-sited resources. If the capacity need is so urgent, why is the Company limiting its own options? With rapidly-evolving demand projections, the Company should take a "kitchen sink" approach and leverage all cost-effective tools at its disposal, especially those that can be deployed rapidly and at low risk to billpayers.

If the Company waits until the 2025 IRP to file a battery program, that program will not be operational until 2026 at the earliest. This wastes valuable time that the Company could be

deploying a scalable resource to help meet the near-term capacity need and gaining valuable operational expertise to inform future planning.

BYOD Demand Response Program Benefits to Consumers and the Company

There are six core reasons a residential and small commercial solar and battery BYOD pilot program should be included in this IRP Update:

A. SPEED AND FLEXIBILITY OF DEPLOYMENT

Residential and small commercial BYOD programs can be spun up at a speed that matches the urgent need to build capacity. Unlike large-scale resources that need to be sized in advance, a battery aggregation can grow based on the actual capacity as it evolves. This ability to “right size” the BYOD pilot based on evolving demand forecasts reduces the risk of over procurement in case some portion of new load included in the Company’s demand forecast fails to materialize as quickly as it expects.

B. PRIVATE CAPITAL

A BYOD pilot program would enable the Company to procure the benefit of fast-acting battery storage for all customers’ benefit without increasing the rate base. Rather, customers would purchase systems (taking advantage of lucrative federal incentives) and earn compensation in exchange for providing system benefits. Often the only required capital investment by the utility is the software used to control individual batteries enrolled in the program.

C. RESOURCE DIVERSITY

The importance of resource diversity is well established in utility planning. Large-scale resources benefit from economies of scale but have a single point of failure. On the other hand, individual systems contained within a BYOD pilot can fail without materially impacting the aggregate capacity.

D. RESILIENCE

The DCO-1 and DCL-1 tariffs are open only to large commercial and industrial customers. A BYOD pilot would expand resilience options for residential and small commercial customers by defraying the total cost of ownership of battery storage (through the upfront and ongoing compensation payments).

E. DISTRIBUTION CONSTRAINTS

Residential batteries can help alleviate distribution-level constraints in addition to meeting system-wide peak demand. This could be used to defer distributional investments (e.g., related to residential electrification), delivering further benefits to all Georgia Power billpayers.

F. OPERATIONAL EXPERIENCE

Experience with a BYOD pilot can be extended to help the Company plan and launch similar programs for other customer-sited flexible loads, including EVs and electric water heaters. This expertise will become a tool in the Company's tool belt to quickly meet new capacity needs and adapt to unexpected changes in demand forecasts.

The Company Already Possesses DERMS Operational Capability

While the Company argues that introducing more load flexibility programs demands additional planning and operational resources beyond what's currently available in this IRP Update, it hasn't convincingly explained why it can't tap into the expertise of existing program operators or seek assistance from external providers.

In this IRP Update, the Company proposes two new DER programs to be implemented through new tariffs, the DER Colocation Program and the DER Customer Owned Program. Both of these programs are applicable to qualifying commercial and industrial customers. If the Company has the ability to leverage new load flexibility programs for commercial and industrial customers, why can't it also develop such programs for residential and small commercial customers?

If the Commission believes that the Company does not have enough time to develop or obtain the software needed to enroll and dispatch battery systems prior to the 2025 IRP, the Company could instead collaborate with a third-party aggregator that enrolls and dispatches the systems on the Company's behalf. Contracting with an aggregator could help avoid delays in realizing program benefits by leveraging the expertise of companies that have launched distributed battery programs in other states. For this arrangement, the Company would need to compute the value of peak demand reduction (to provide fair customer compensation) and send a signal to the aggregator indicating when to dispatch systems. These requirements are identical to what the Company must implement for the proposed DER tariff programs. Similar collaborations between utilities and third-party battery aggregators have been launched in as little as 6 months from the date of commission approval.¹

¹ <https://investors.sunrun.com/news-events/press-releases/detail/279/sunrun-and-pge-collaborate-on-residential-battery-powered>

The Company also proposes to expand the existing Thermostat DR Program in this IRP Update. As part of GA Solar's cross examination of the Company's rebuttal testimony witnesses, it was revealed that the Company already uses a third party provider, Uplight, to implement this program, in which the Company sends remote signals to thermostats in customers' homes during dispatchable events. This is operationally identical to how battery storage systems are managed under the proposed BYOD pilot. It was further established that Uplight recently acquired Autogrid, one of the largest DERMS providers in the country, which has a great deal of experience implementing DER programs across the country.

In its rebuttal testimony, the Company asserts, "Deriving System value from mass market load flexibility programs will require continued investment in enterprise Distributed Energy Resource Management Systems (DERMS) for visibility, predictability, and enhanced operational capabilities of these resources" (2023 IRP Update Rebuttal Testimony Page 44, Lines 11-14).

The term, DERMS, encompasses many different types of software, ranging from system-wide optimization platforms that orchestrate many resource types to simple dispatch of a single device type. While the Company is in the process of selecting an enterprise "grid-centric" DERMS, this does not mean it cannot also leverage separate software to dispatch distributed battery storage in a BYOD pilot. These systems are not mutually exclusive and are often integrated as part of utility operations. The same could be done once the Company's enterprise DERMS platform is operational.

Leveraging the resources already dedicated to both commercial and industrial DER Programs, along with those in use for the Thermostat DR Program, the Company is well-equipped with the necessary DERMS operational capacity to manage customer-sited resources, either directly or

indirectly. This positions the Company well to also implement a residential and small business solar and battery pilot program to bolster grid stability and increase capacity, crucially supporting the surge in economic activity and the demands of growing energy needs.

Conclusion

Due to the unprecedented amount of economic development in Georgia, the immediate need for an affordable, dispatchable, and modular capacity resource to meet growing energy demands, and the the ability to leverage existing resources already dedicated to proposed and existing DER programs, it is prudent and necessary that the Commission direct the Company to develop a behind the meter residential and small commercial solar and battery BYOD pilot program as part of this IRP Update.

By initiating this pilot program now, the Company will not only secure an extra source of clean, cost-effective, and scalable energy to meet the increasing demands but also collect invaluable data that will shape the system planning for the 2025-2028 Integrated Resources Plan.

Moreover, this initiative will enhance the Company's operational expertise with this technology, deepening its understanding of the comprehensive benefits that a residential and small commercial solar and battery BYOD pilot program can offer.

[END OF FINAL BRIEF]

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Docket No. 55378

CERTIFICATE OF SERVICE

I certify that the foregoing **POST-HEARING BRIEF OF GEORGIA SOLAR ENERGY ASSOCIATION** in Docket No. 55378 was filed with the Public Service Commission by electronic delivery on the 4th of 2024. An electronic copy of same was served upon all parties listed below by electronic mail as follows:



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