Behind-the-Meter
Interconnection Summary
for Residential Customers

Georgia Power Company

241 Ralph McGill Boulevard

Atlanta, Georgia 30308

https://www.georgiapower.com/solar

This Summary is subject to periodic revisions. The current version is available on GPC's Residential Solar Solutions Website. GPC provides this Summary for guidance and informational purposes only; it does not amend any rule, regulation, tariff, policy, or agreement.

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INTRODUCTION

This Summary[1] provides information for Georgia Power Company (GPC) residential Customers[2] interested in installing an on-site solar Facility on Customer's side of the GPC electric meter (i.e., behind-the-meter (BTM)). Customers and installers are encouraged to use this Summary as a guide to assist in understanding and completing GPC's application and interconnection process. As further discussed in this Summary, the interconnection process may vary based upon the unique nature of a Customer's Facility.

1. OVERVIEW OF GPC BTM RESIDENTIAL SOLAR PROGRAMS

GPC offers several programs and alternatives to help Customers to meet their renewable energy needs. Customers may utilize the Solar Advisor Tool to help determine if a solar installation is the best option for their current needs. Please visit the Residential Solar Solutions Website to review GPC's current solar program options and get cost estimates to help determine the solar program that best suits you and your goals. On the Residential Solar Solutions Website, Customers can use the Solar Advisor Tool to explore considerations and the estimated costs for a solar panel installation.

The two primary programs for a residential Customer who wants to install an on-site solar Facility are described below and generally referenced as "EOO" and "RNR":

- **Energy Offset Only (EOO).** EOO is designed for Customers who would like to maximize the size of their solar installation to offset their energy usage. An EOO Facility cannot push energy back onto the Electric System and EOO Customers are not compensated for any excess energy that is generated and delivered to the Electric System. GPC may require Customer to install equipment at their EOO Facility to prevent excess energy export. If a BTM Customer has installed a BTM Facility but has not yet elected to participate in a specific BTM program, GPC will automatically enroll Customer for EOO. For more information regarding EOO, please visit the "How it Works" section on the Residential Solar Solutions Website.
- **Renewable and Nonrenewable Resources (RNR).** Customers who participate in the RNR program receive compensation for excess electrical energy delivered to GPC. GPC's Renewable and Nonrenewable Resources Tariff outlines parameters of this program. The RNR Tariff limits eligible residential renewable energy resources to Facilities with a peak generating capacity of less than or equal to 10 kW. If Customer's Facility has a battery system and the battery system has been derated and has a maximum inverter capability greater than 10 kW, the Customer will not be permitted to participate in the RNR program (see Part 4 (*Battery Installations*) for additional information regarding battery systems). Participating Customers receive compensation based on GPC's Renewable Cost Benefit (RCB) Framework adjusted solar avoided energy cost as filed with the Georgia Public Service Commission in Docket No. 16573. For more information about the RNR Tariff, please visit the "How it Works" section on the Residential Solar Solutions Website.

[1] Terms used in this Summary are explained in further detail in Exhibit A (*Terminology and Resources*).

[2] This Summary is for residential Customers. If you are a commercial and industrial customer, please reference the GPC Behind-the-Meter Distribution Interconnection Summary for Commercial and Industrial Customers available on the Business Solar Solutions Website.

2. FACILITY OWNERSHIP OPTIONS

In addition to Customers installing, owning, and maintaining their Facility on their own, Customers may also enter into a solar energy procurement agreement (SEPA) with a solar financing agent. Under a SEPA, the solar financing agent finances Facility installation or operation, or both, and Customer makes payments (as agreed with the solar financing agent) based on the performance and output of the Facility installed on Customer's property. Please note, Customer remains responsible for obligations under the service and interconnection agreement even when a solar financing agent is involved. If Customer chooses to engage a solar financing agent, GPC recommends that Customer finalize and execute the SEPA before applying to GPC for interconnection. Customer is responsible for completing the application (and obligations regarding the Facility), but Solar Financing Agent may provide necessary information or assist Customer in completing the application.

3. BTM RESIDENTIAL INTERCONNECTION OVERVIEW

To ensure the proposed BTM Facility is safely and properly connected to the Distribution System, Customers, their installers, and GPC must cooperate throughout a multi-step process:

- **Step 1:** Review this Summary and relevant documents
- **Step 2:** Customer (or installer) submits interconnection application
- **Step 3:** GPC reviews Customer's interconnection application
- **Step 4:** Parties execute appropriate service and interconnection agreement
- **Step 5:** Facility installation and inspection
- **Step 6:** Witness Testing and Permission to Operate

Step 1: Review This Summary and Relevant Documents. Before applying for interconnection, Customer and Customer's installer should review this Summary (and the RNR Tariff if Customer desires to participate in the RNR program) and the installer should also familiarize itself with the following documents:

- Southern Company Operation of Distributed Energy Resources (DER) in Parallel with the Distribution System Policy ("**Southern Company Policy**")
- GPC BlueBook for Electrical Service ("**BlueBook**")
- GPC Distribution Test Policy ("**Test Policy**")
- Distribution Bulletin 18-23 ("**DB 18-23**")
- Section G (*Customer Generation*) of GPC's Rules, Regulations, and Rate Schedules for Electric Service ("**Rules and Regs**")

Step 2: Customer (Or Installer) Submits Interconnection Application. Customers interested in interconnecting a Facility to the Electric System must apply for interconnection. The application process uses GPC's PowerClerk tool. Depending on each Customer's preference, the PowerClerk information may be completed either by Customer or by Customer's chosen installer.

- **Application Requirements.** Customer (or Customer's installer) must provide in PowerClerk basic Facility information, including a Facility one-line diagram, site plan, and proposed equipment specifications. GPC will review the application after Customer has submitted all application forms and related documentation.

- **Fees.** For a Facility interconnected to the Distribution System, there is a one-time interconnection fee. Reference Rules and Regs Section G (*Customer Generation*) for current amounts.
- **Application Supporting Documents.** Customer must submit the following information as part of the application process:
    - **One-Line Diagram.** Facility one-line electrical diagram showing how the Facility is or will be electrically wired from the generation/solar panels to GPC's electric meter. The one-line diagram must be an accurate representation of the equipment and wiring methods. Reference Exhibit B (*One-Line Diagram Example*) for a one-line diagram example. GPC will not accept hand-drawn one-line diagrams. GPC requires the following information as part of the one-line diagram:
        - Customer name and installation address matching the GPC account.
        - Renewables and battery system equipment (if applicable), including quantity, manufacturer, and model.
        - Total inverter nameplate Capacity (kW (AC)).
        - Total solar panel nameplate capacity (kW (DC)).
        - Location of generation AC disconnect(s) that isolate Facility from the Electric System (identifying whether fusible or non-fusible, visible load break, and mounting location, and stating labeling language as installed). For full AC disconnect requirements, reference the Construction Guidelines for additional information.
        - POI (method stated, accurate location, and showing GPC meter number serving the POI).
        - Identify whether the equipment is existing or new (all existing and new equipment and wiring must be shown).
    - **Site Plan.** The Facility site plan that includes the following information:
        - Customer name and installation address matching GPC account.
        - AC disconnect(s).
        - POI.
        - Renewables and battery system equipment (if applicable).
    - **Specification Sheets.** Specification sheets that match the information provided in Customer's application. Generator/inverter spec sheet and AC-coupled battery open transition switch/battery gateway specification sheets must show the UL1741SB and IEEE1547-2018 listing.
    - **Non-Export Application Form (Energy Storage Installations).** DB 18-23 non-export application form (available in DB 18-23) for all energy storage installations that can operate in a backup operation mode.

Step 3: GPC Reviews Customer's Interconnection Application. GPC's review and feedback on how the Facility will interconnect and operate will alleviate and address potential interconnection or testing issues before the installation occurs. Customer is advised to not purchase any Facility equipment until after GPC reviews the application and determines how the Facility can be integrated with existing GPC equipment and service. GPC will review Customer's application and provide feedback regarding potential interconnection issues for Customer to address before purchasing

equipment or commencing installation. See Section 4 (*Battery Installations*) for additional requirements if Customer intends to install a battery system.

Step 4: Parties Execute Appropriate Service and Interconnection Agreement. Customer must enter into a service and interconnection agreement with GPC, which outlines the terms and conditions of interconnection and the particular BTM program Customer selected. The appropriate service and interconnection agreement depends on the BTM program Customer selected and whether Customer has entered into a solar energy procurement agreement (SEPA) with a solar financing agent. When Customer and a solar financing agent enter into a SEPA, GPC requires both the Customer and the solar financing agent to sign the applicable agreement to ensure the solar financing agent is aware of and follows GPC's interconnection technical and operating requirements. The appropriate agreement will be one of the following:

Service and Interconnection Agreements for BTM Residential Customers	
Agreement Name	**Key Program Requirements**
Renewable and Nonrenewable Service and Interconnection Agreement for BTM Solar ("RNR")	For a residential Facility ≤ 10 kW that meets the requirements of the current RNR Tariff. Customer receives compensation for excess energy delivered to GPC.
Renewable and Nonrenewable Service and Interconnection Agreement for BTM Solar with SEPA ("RNR with SEPA")	Same as above, except for Customers who have entered into a SEPA with a Solar Financing Agent
Energy Offset Only Service and Interconnection Agreement for BTM Solar ("EOO Short Form")	For a residential Facility that is EOO. Customer will ***not*** receive compensation for any excess energy delivered to GPC.
Energy Offset Only Service and Interconnection Agreement for BTM Solar with SEPA ("EOO Short Form with SEPA")	Same as above, except for Customers who have entered into a SEPA with a Solar Financing Agent

After the applicable service and interconnection agreement is generated in PowerClerk, GPC will send it to Customer for review and execution via PowerClerk DocuSign. GPC will sign after Customer and will send the fully executed service and interconnection agreement to Customer once GPC grants Permission to Operate (PTO).

Step 5: Facility Installation and Inspection. After GPC reviews and approves the application and the service and interconnection agreement has been fully executed, Customer may install the Facility and notify GPC once the Facility construction is complete and ready to be tested. If GPC must also construct additional interconnection facilities or system upgrades, additional time may be needed. Customer's installer should reference the Construction Guidelines for additional information regarding BTM Facility construction.

- **Inspection by the Local Authority Having Jurisdiction.** All renewable energy and battery systems must be inspected by the local AHJ after installation, but before interconnection to the Distribution System. Inspection ensures that all National Electric Code (NEC) requirements have been met.

Step 6: Witness Testing, and Permission to Operate. As described in Rules and Regs Section G (*Customer Generation*), GPC may conduct witness testing to ensure the Facility's safe parallel operation. If witness testing is required for Customer's Facility, the Facility must pass the applicable witness test before GPC approves the Facility to operate in parallel with the Distribution System. All witness tests are subject to Customer's completion of program and interconnection process requirements (as applicable), GPC resource availability, holiday schedules, inclement weather, and other unforeseen system emergencies.

Upon successful witness testing, GPC will program Customer's meter for bi-directional service (if applicable), indicating the Facility has received permission to operate (PTO). For additional Witness Testing information, refer to the Distribution Test Policy.

4. BATTERY INSTALLATIONS

This section provides an overview of general requirements for a battery system to operate in parallel with the Distribution System.

- **Parallel Operation.** For the battery system to operate in parallel with the Distribution System, the following must be met:
    - If the battery system will be used for self-consumption only (e.g., peak shaving, on-peak hours, nighttime energy needs), the inverter used in the system (whether the system is AC- or DC- coupled) must comply with UL1741SB and IEEE 1547-2018. When Electric System power is lost, the inverter must cease-to-energize so that it is incapable of delivering power to the Distribution System. GPC verifies this functionality by testing the cease-to-energize functionality of the Facility.
- **Standby Operation.** If the battery system will be used for standby purposes (i.e., to supply power to all or some of the Customer's loads when the Distribution System is unavailable) then the following requirements/conditions must be met:
    - All inverters must be UL1741SB compliant. GPC verifies this functionality with the same procedure currently used for solar PV installations installed without a battery system.
    - The automatic transfer switches must be an open transition transfer (OTT) switch that operate in a break-before-make manner, which must be employed to switch over from utility power to the battery system to serve local loads. Customer must provide GPC with specification sheets that confirm this information.
    - The automatic transfer switches must be mechanically interlocked. Customer must provide GPC with specification sheets that confirm this information, along with a picture of the switches for verification purposes.
    - Customer must complete and submit with its application GPC's DB 18-23 Form for Non-exporting Generators (Customer must complete all the applicable fields, sign, and submit this form).
    - If the battery system or inverters have special functionalities (e.g., single directional power flow on certain circuits, communication lines), these functions, and all other

details concerning the battery system's operation must be clearly indicated on the single-line diagram.

For additional battery requirements, reference the Construction Guidelines.

5. ADDITIONAL INFORMATION

Failure to Apply for Interconnection. If Customer fails to notify GPC in advance, GPC will still learn of the existence of the Customer's Facility from reverse energy flow alerts from Customer's electric service meter. After receiving a reverse energy flow alert, GPC will contact Customer for information regarding the on-site Facility. GPC reserves the right to disconnect electric service to Customer until GPC determines the Facility can safely operate in parallel with the Distribution System, Customer executes the applicable service and interconnection agreement (see Step 4 (*Parties Execute Applicable Service and Interconnection Agreement*)), and Customer pays all applicable fees and expenses associated with the Facility.

Other Conditions. Customers served directly off the Network Underground must contact GPC for additional guidance if they are interested in installing a BTM Facility for self-consumption or sale of electrical output. Please use the Solar Intake Request link to send questions and correspondence to GPC.

Contacting GPC. Please use the Solar Intake Request Form (see *Resources* section for additional information) to send questions and correspondence to GPC.

Periodic Revisions. This Summary is subject to periodic revisions, and GPC will make changes without notice. The current version of this Summary is maintained at GPC's Residential Solar Solutions Website.

EXHIBIT A – TERMINOLOGY AND RESOURCES

Terminology Used in this Summary

AC: Alternating current.

Authority Having Jurisdiction (AHJ): The entity or person responsible for: (i) enforcing codes and regulations; or (ii) approving equipment and materials. If no AHJ exists for the Facility location, a qualified licensed electrician or registered professional engineer (in good standing through the applicable state board with licensing authority over professional engineers) must perform required inspections and provide required authorizations.

DC: Direct current.

Distribution System: Electric System facilities owned by GPC that operate at a voltage below 40 kV (AC).

Electric System (a/k/a Grid): The network of electric generation, transmission, or distribution facilities owned or operated by GPC or other electric utilities.

Energy Offset Only (EOO): A system: (i) that is not designed or authorized to push energy back onto the Electric System; and (ii) for which Customer will not be compensated for any excess energy that the Facility generates.

Facility: The solar facility on Customer's premises that will interconnect to the GPC Distribution System.

kW: Kilowatt (AC).

MW: Megawatt (AC).

Point of Interconnection (POI): The point where the Facility interconnects to the Distribution System.

Test Policy: The ***GPC Distribution Test Policy*** or any successor policy, publicly available on the GPC Distributed Generation Website (see *Resource*s section for additional information).

Witness Test or Witness Testing: Live testing of the Facility while operating in parallel with the Electric System in accordance with the Test Policy.

Resources

Bluebook: Publicly available on the Residential Solar Solutions Website.

Business Rates & Tariffs Website: https://www.georgiapower.com/business/billing-and-rates/business-rates.html

Business Solar Solutions Website: https://www.georgiapower.com/business/products-programs/business-solutions/commercial-solar-solutions.html

Construction Guidelines: Publicly available on the Distributed Generation Website.

Distributed Generation Website: https://www.georgiapower.com/business/products-programs/business-solutions/commercial-solar-solutions/distributed-generation.html#dgi

DB 18-23: https://www.georgiapower.com/content/dam/georgia-power/pdfs/business-pdfs/DB-18-23-Rev-1-6-21_external-only.pdf

PowerClerk BTM User Guide: PowerClerk-BTM-User-Guide.pdf (georgiapower.com)

PowerClerk Website: https://georgiapowerbtm.powerclerk.com/

QF Website: https://www.georgiapower.com/business/products-programs/business-solutions/qualifying-facilities.html

Residential Solar Solutions Website: https://www.georgiapower.com/residential/save-money-and-energy/products-programs/residential-solar-solutions/residential-rooftop-installations.html

RNR Tariff: Publicly available on the Residential Solar Solutions Website (see *Other Schedules – Renewable and Non-Renewable*)

Rules and Regs: Publicly available on the Residential Solar Solutions Website (see *Other Schedules – Common to All*)

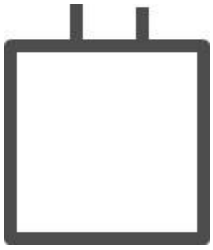
Solar Advisor Tool: https://georgiapower.wattplan.com/pv/

Solar Intake Requests: https://www.georgiapower.com/residential/save-money-and-energy/products-programs/residential-solar-solutions/solar-intake-request.html

Southern Company Policy: Publicly available on the Residential Solar Solutions Website.

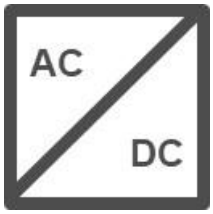
Test Policy: Publicly available on the Residential Solar Solutions Website.

EXHIBIT B – ONE-LINE DIAGRAM EXAMPLE



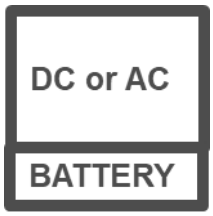
SOLAR MODULE

METER

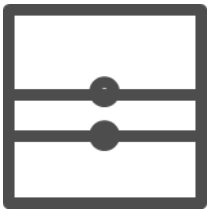


INVERTER

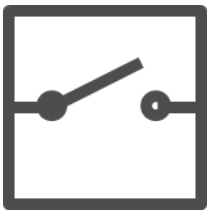
BREAKER PANEL



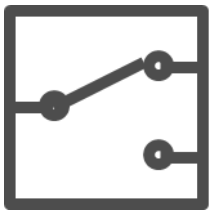
BATTERY



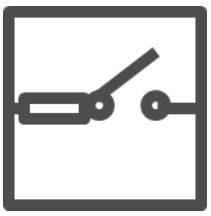
JUNCTION BOX



AC DISCONNECT (NOT FUSED)



TRANSFER SWITCH



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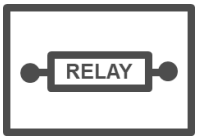

RELAY SWITCH

One-Line Standard Electrical Diagram	
GPC Customer Name:	Fname Lname
Address:	123 Street, City, GA 12345
Renewables Total DC Size (kW):	6kW
Renewables Total AC Size (kW):	5kW
Energy Storage Total Size (kW):	5kW
Energy Storage Total Capacity (kWh):	14kWh
Date Prepared:	2/1/21
Drawn By:	GPC