EV Charging, Renewables, & Resiliency Solutions

Georgia Association of State Facility Administrators
September 2024

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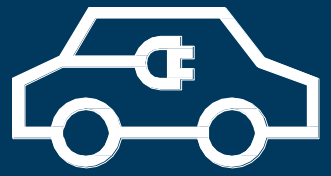
Georgia Power

GASFA
Georgia Association of State Facilities Administrators

Presentation Overview

01

EV Charging Solutions



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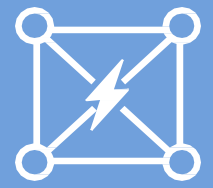
Renewables Solutions

03

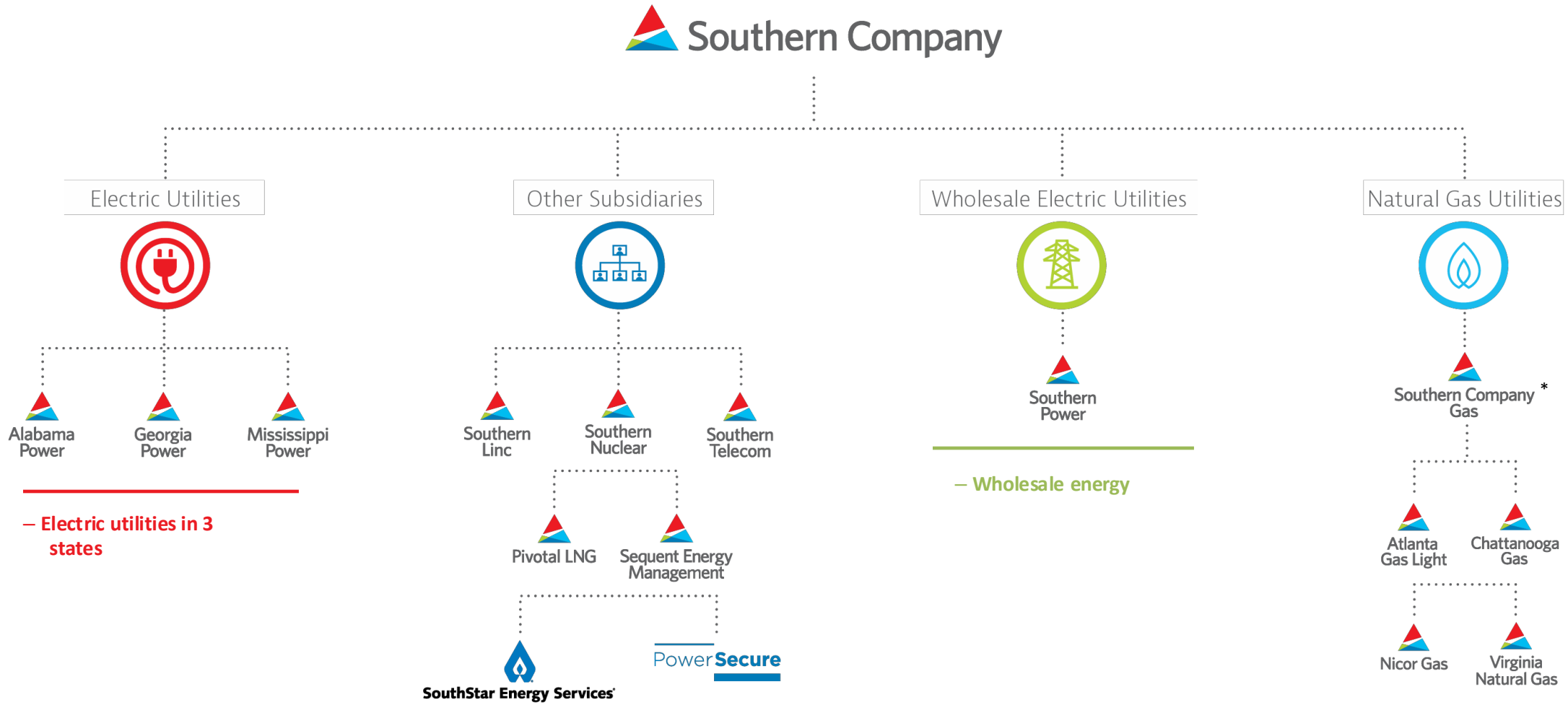
Resiliency Solutions



Our Family of Companies

We support U.S. customers and businesses nationwide

Georgia Power



*Southern Company has a 50% equity interest in the Southern Natural Gas pipeline system through a subsidiary of Southern Company Gas.

Electric Transportation Solutions

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EVs hit 20 /oof global vehicle sales in the final quarter cf 2023

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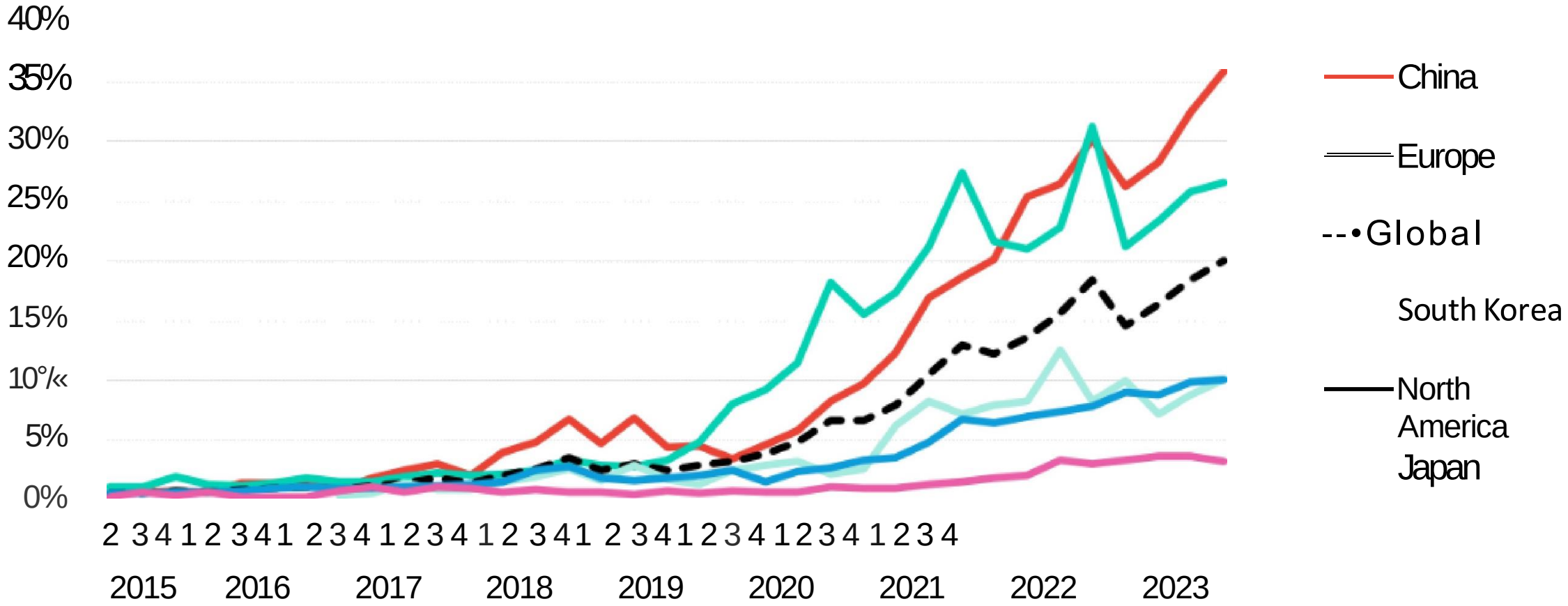
EV share of new passenger car sales



Source. BloombergNEF. Includes BEVs and PHEV8.

BloombergNEF

...but the growth rate is slowing

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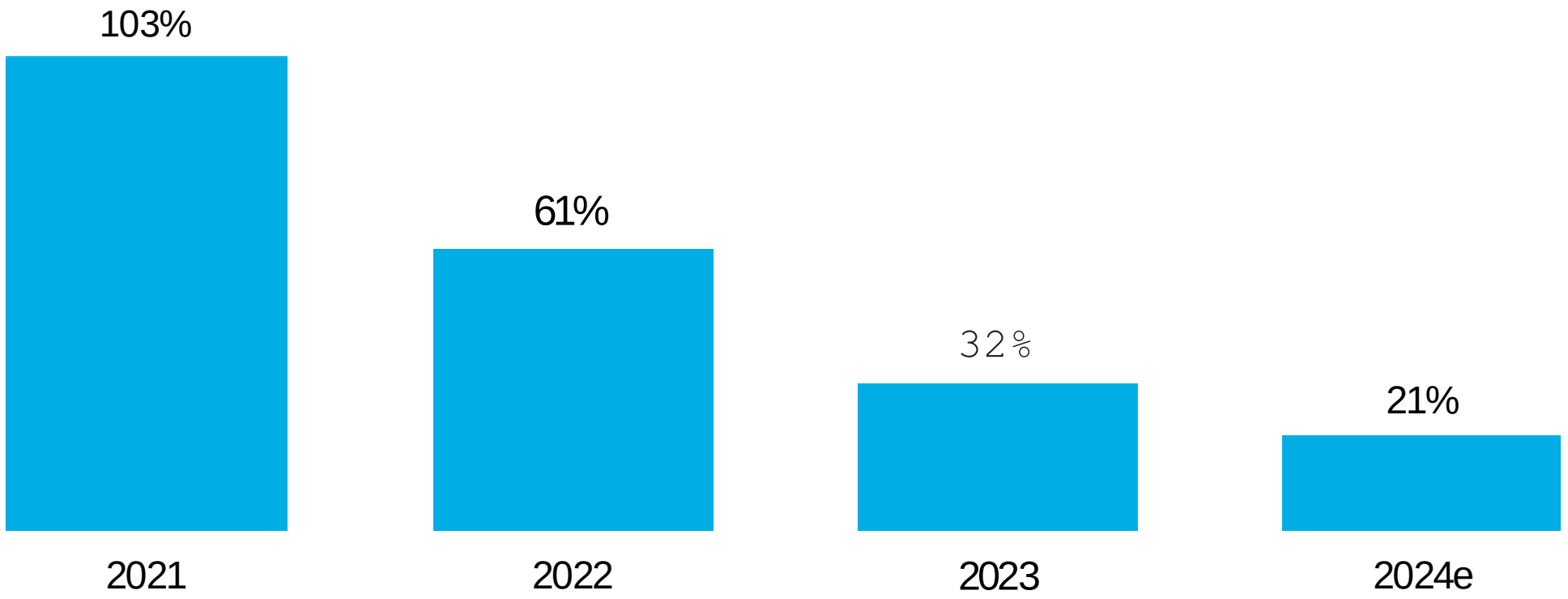
Global passenger EV sales annual growth rate



Source. BloombergNEF. Includes battery electric and plug-in hybrid passenger vehicle sales

BloombergNEF

State of Georgia Metrics At a Glance

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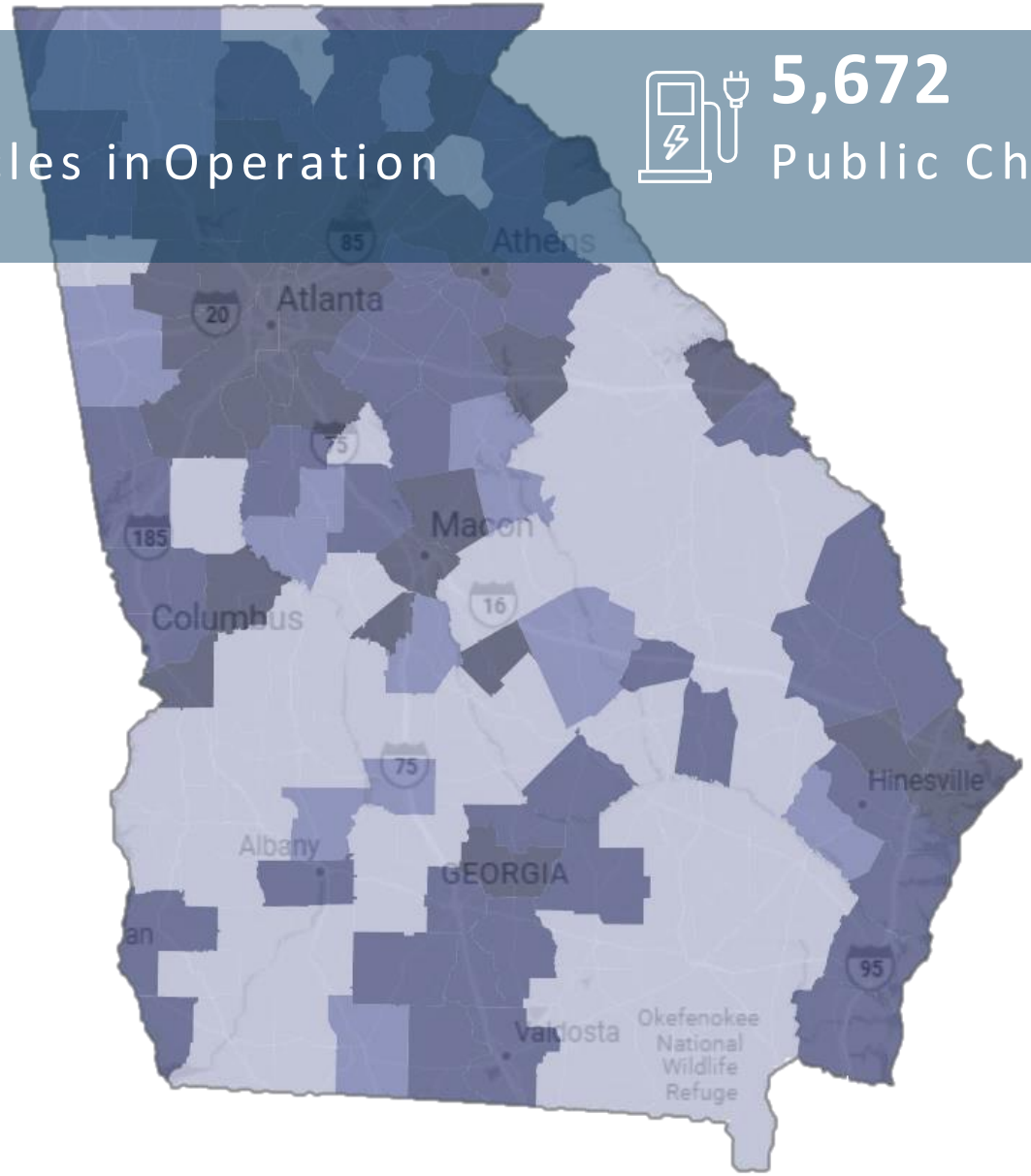
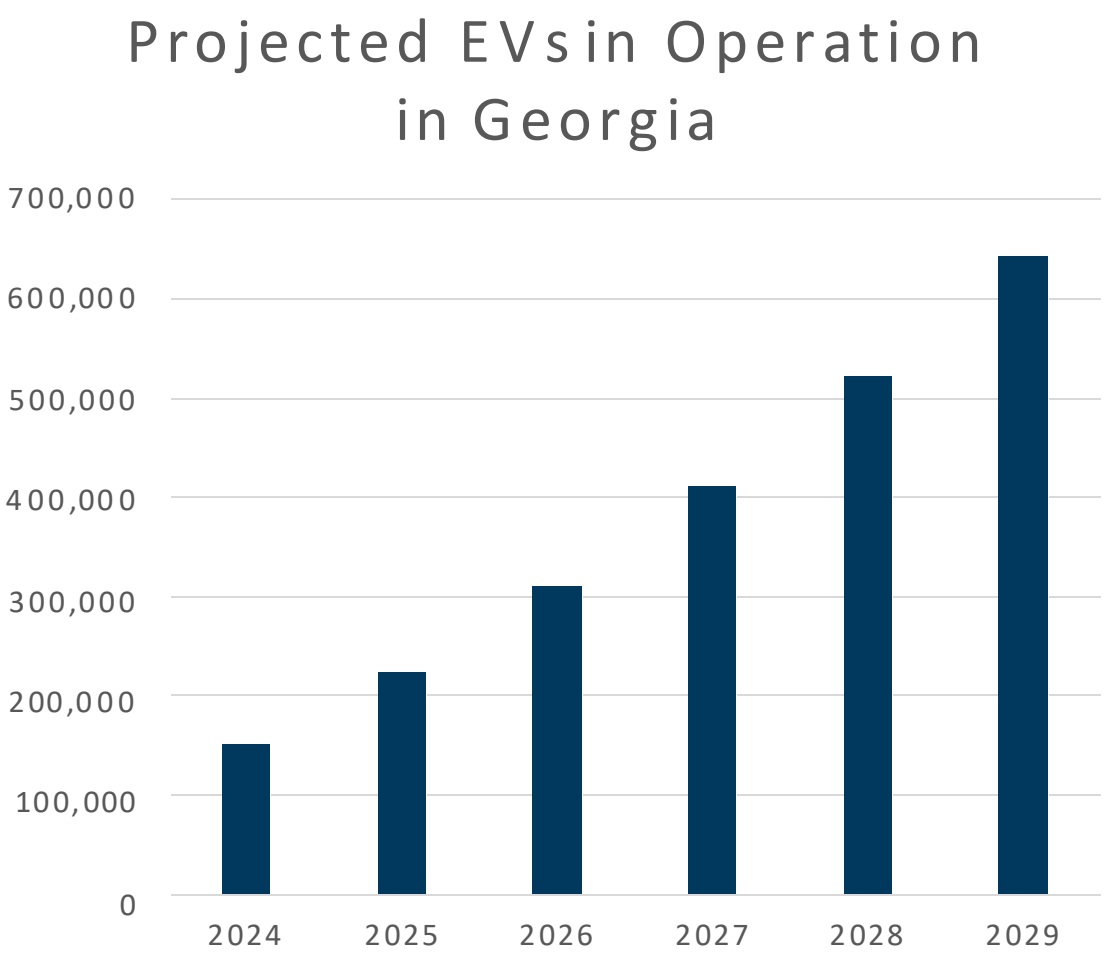
114K+
Electric Vehicles in Operation

5,672
Public Charging Ports



Forecasted EV Growth and Public Chargers Needed by 2030



	Level 2	DCFC	Total
Public Charging Ports Needed	19,253	3,851	23,104
Public Charging Ports Operational	4,370 (23%)	1,318 (34%)	5,688 (25%)
Ports Remaining	14,883	2,533	17,416

Electric Transportation Program Overview

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EV Charger 101

Things to consider when selecting a charger

- Will the charger be installed for public use or for fleet?
- What level charger do I need?
- Do I need a non-networked or networked Charger?
- Maintenance and resiliency

Types of Chargers

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Level 2 Charging

208/240V

~ 24 miles per hour charge
6.6kW - 19.2kW

J1772 plug

Suitable for:
Homes, Workplaces, Public Spaces, Fleet

Fast Charging

480V

Fully charge in 5-60min
20kW - 350kW

Suitable for:
Public Spaces, Large Fleet

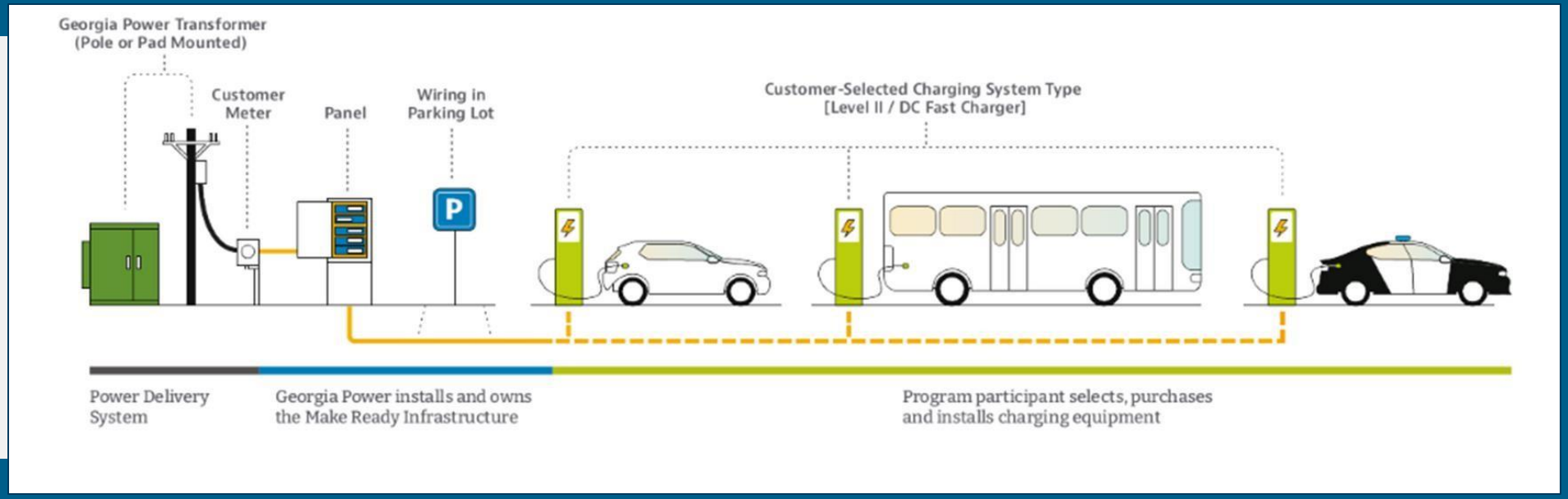
Non-Networked	
"Dummy Charger"	Free Amenity
No User Account	No Reporting/Utilization Data
Plug and Charge	Low Cost – High Reliability
Recommended Use: Workplace Charging, Fleet Charging	

Networked	
"Smart Charger"	Ability to set Pricing Policy
User Account Required	Generate Reports, Collect Data
Cellular Modem or Wi-Fi connection	24/7 Tech Support
Recommended Use: Public Facing	

Make Ready EV Charging Infrastructure Program

Key Requirements:

- Public-Facing Installation (Accessible or Serving the Public)
- 6 or more Level 2 chargers or 1DCFC



Includes

ET Charging Infrastructure includes panels, conduit, wiring and associated infrastructure on customer side of the meter.

May Include

Transformers and other power delivery equipment will utilize the standard new line extension polices. Additional upgrade costs may be covered through Make Ready program.

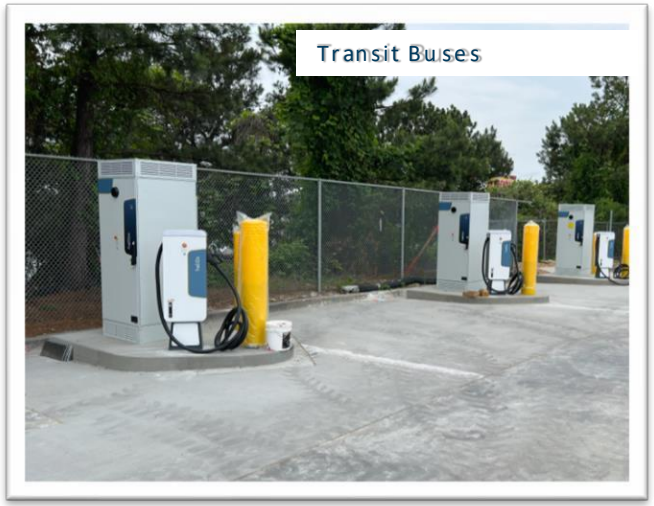
Does Not Include

- Charger Equipment
- Concrete Pads
- Future Proofing
- Space Painting, Wheel Stops, Landscaping, Bollards
- Restricted Access Chargers Outside of Publicly Owned Vehicle Fleets

Program Criteria

Chargers must be accessible by the public or in service of publicly owned fleets.
Business customers can apply at georgiapower.com/makeready

- Must install **at least six Level 2 chargers** (ports) or one DC fast charger.
- Make Ready program investments will be **capped at $300K per project** unless otherwise authorized.
- Requests to future proof to add chargers later cannot be funded with Make Ready dollars.
- **Designed and installed by Georgia Power** approved and selected partners.
- Up to **five projects per customer** are worked at a time.
- Make Ready program dollars cannot be used to pay for the infrastructure to support a city mandated installation through legislation or city ordinances.
- Easements may be needed.



Make Ready Process

For more information:
Scan the QR code
or visit georgiapower.com/makeready

Application

Interested participants can apply online at georgiapower.com/makeready

Eligibility Review

We will review your project details to confirm it meets the program criteria

Site Assessment and Design

We will conduct an on-site visit and develop site design

Project Planning

We will finalize the site design, receive approval, and start ordering equipment

Construction

We will install the make ready infrastructure and you will install the chargers

Business EV Charger - Rebate Program

Commercial and Industrial Customers

- Applies to new and existing business customers for workplace, customer, and fleet charging
- Rebate amounts are determined based on the power rating of the chargers installed

Tier I	Tier II	
Less than 6 L II chargers	6 or more L II chargers	One or more DCFC
$50/kW	$250/kW	$100/kW
$2,000 Cap	$20,000 Cap	$20,000 Cap
No Pre-Approval	~~Pre-Approval Required~~ Waived	~~Pre-Approval Required~~ Waived

It may be more cost effective to install more chargers and utilize the Make Ready Program.

For more information:
Scan the QR code or visit
georgiapower.com/et

Georgia Power EV Rates
Things to consider:

- Will chargers be separately metered?
- Will there be public access for chargers?
- Will employees be driving/charging fleet vehicles at home?

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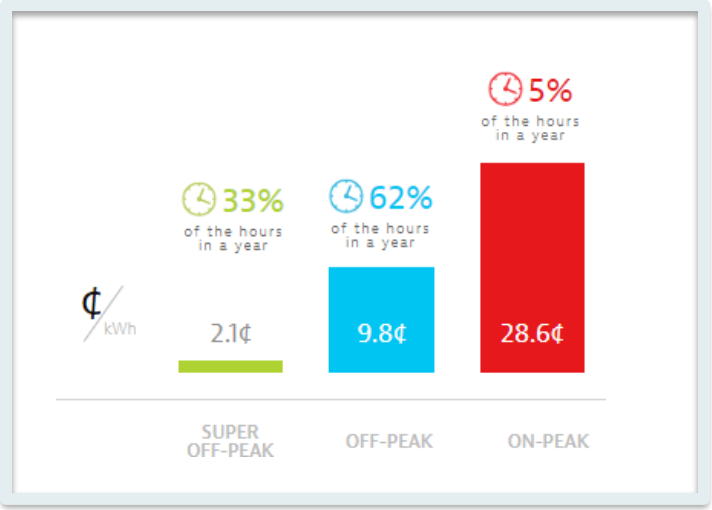
Save with the Right Rate Option

Residential

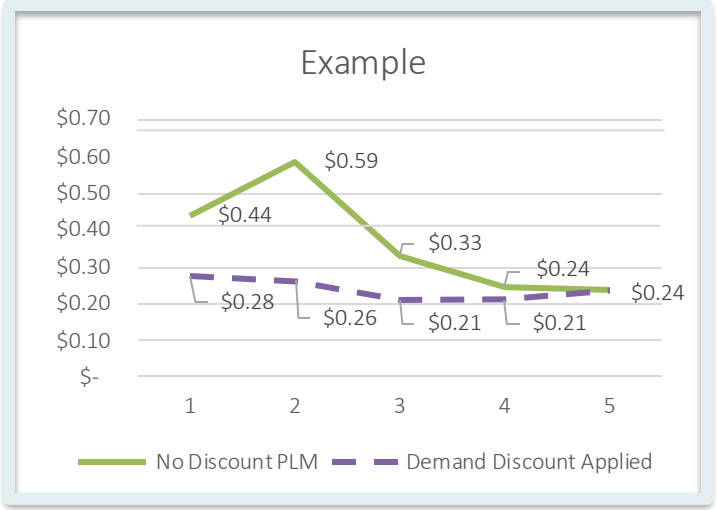
Overnight Advantage



Overnight Advantage allows customers to save on their energy usage by allowing them to take advantage of off-peak and super off-peak pricing.

Business

Charge-It Rate Rider

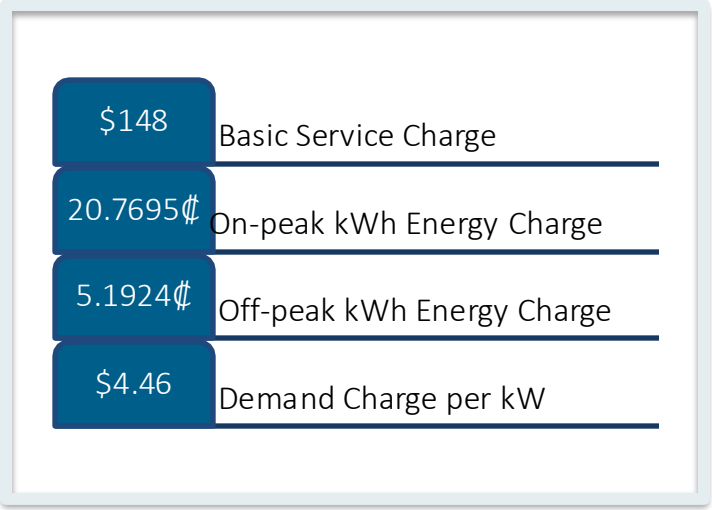


Charge-It offers customers a billing demand discount for four years or until a customer's average load factor reaches 15%.

The chargers must be separately metered and be a Power & Light rate.

Business

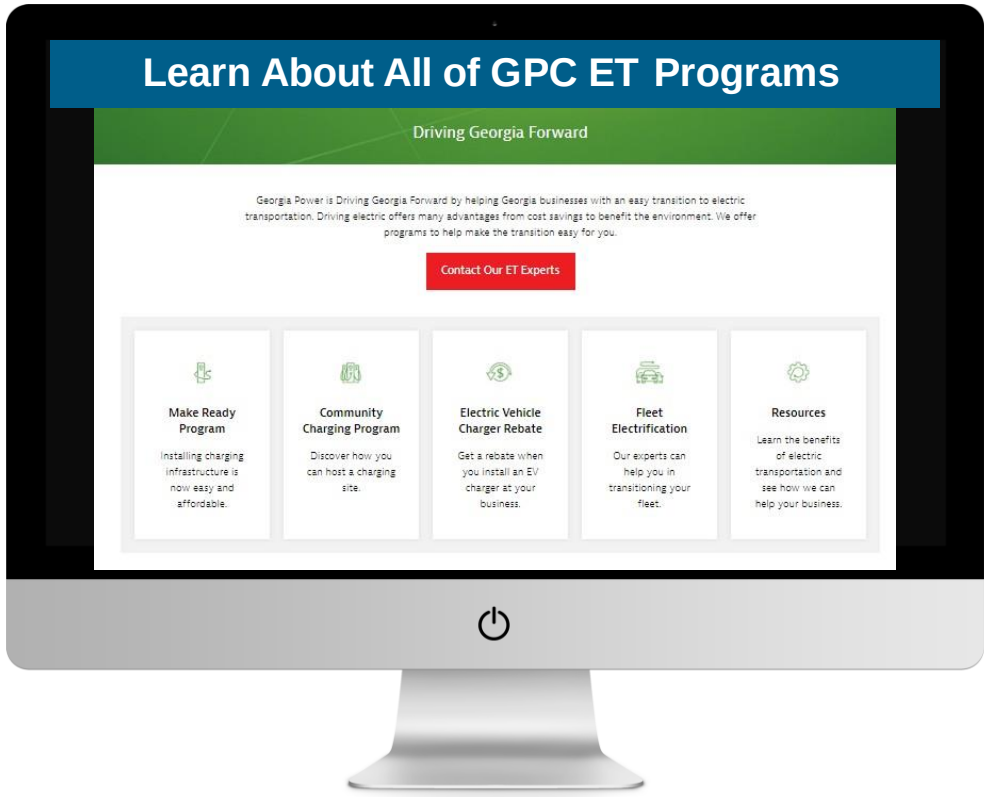
Time of Use – EV Charging



TOU – EVC allows customers to take advantage of off-peak pricing. This is a good option for fleets that primarily charge overnight.

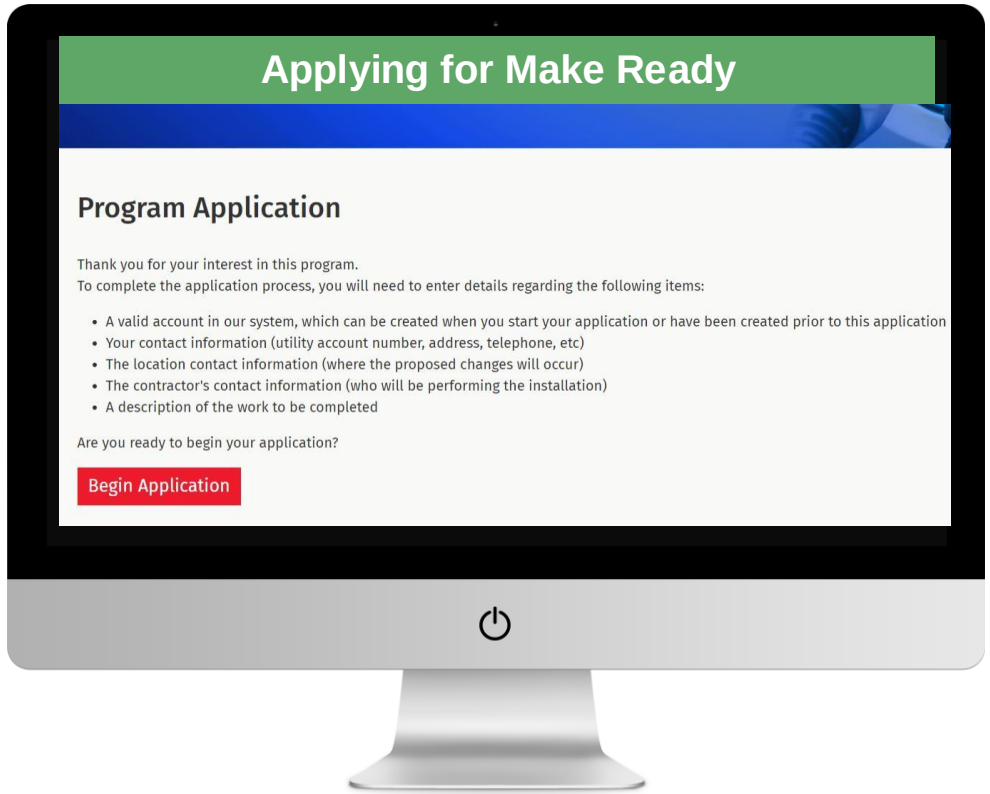
Charging stations must be separately metered.

Resources



GPC Electric Transportation

Georgiapower.com/ET



Make Ready Charger Installation

Georgiapower.com/MakeReady

Renewable Energy Solutions

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Purpose of our Renewable Energy Programs

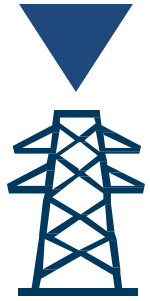
Meeting Our Customer and Community Goals

Affordability

Economic Growth

Positive Environmental Impact

Sustainability Benefits



Grid Resilience

Energy Innovation

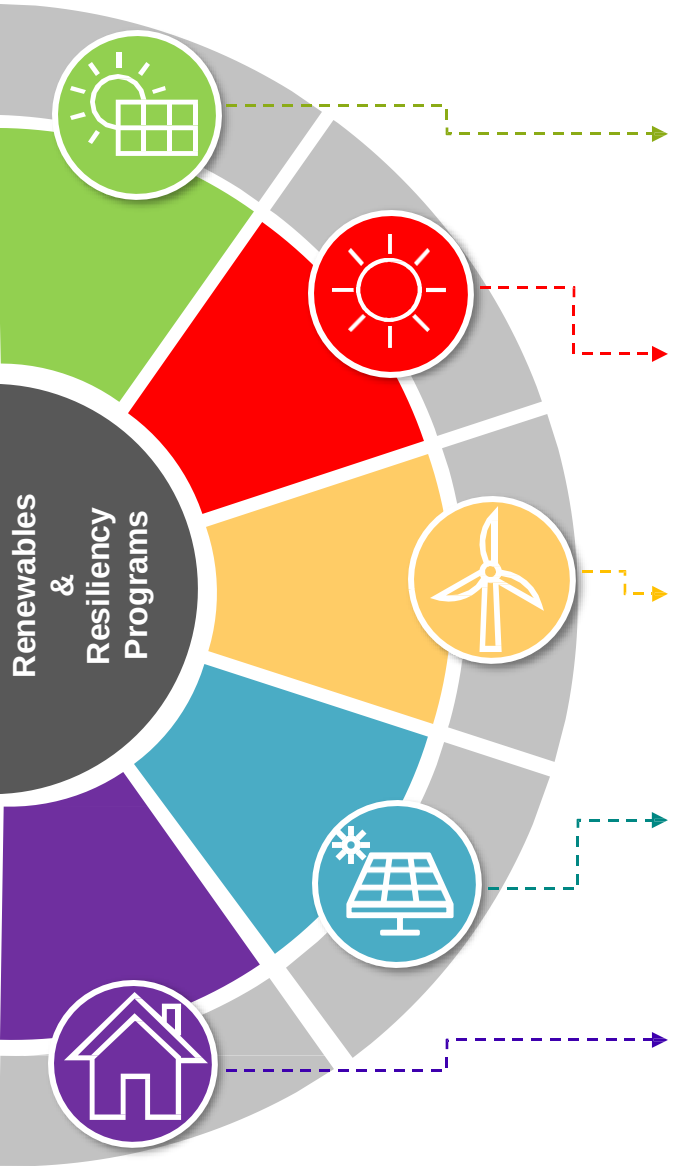
Renewable Programs

Georgia Power

We offer renewable programs across the continuum of customer needs

	Offset		Subscribe		Build
Description	*Environmental attributes purchased and retired on behalf of customers*	*Environmental attributes reallocated from existing renewable facilities*	*Environmental attributes from a portfolio of new renewable facilities*	*Environmental attributes from a portfolio of new 24x7 carbon free facilities*	*Environmental attributes from a dedicated new renewable project*
Mechanism	Unbundled RECs from Market	Unbundled RECs from Georgia	Renewable Energy	Renewable Energy + Storage	Customer Specific
Resource Acquisition	REC Market	Currently Online	Competitive Solicitation	Competitive Solicitation	Direct Transaction
Capacity	No Limit	1,000 – 2,000 MW	2,100 MW	100 MW ATC	N/A
Additionality	⊘	⊘	✓	✓	✓
Timeline	Today	July 2023	January 2028	January 2028	Varies
GPC Program	**Flex RECs**	***Retail Rec Retirement (R3)***	***Clean and Renewable Energy Subscription (CARES)***	***Carbon Free Energy Around the Clock (CFE/ATC)***	***Customer Partnership***

Georgia Power Renewable and Resiliency Customer Program Options



Renewable Subscription Program

Clean and Renewable Energy Subscription (CARES) Program

- Gives business customers an avenue to support their sustainability initiatives by subscribing to a portion of the **2,100 megawatts (MW) of additional renewable generation** that Georgia Power will procure through power purchase agreements (PPAs).

Renewable REC Reallocation Program

Retail REC Retirement (R3) Program

- **Reallocate the Renewable Energy Credits (RECs)** from existing and planned renewable resources and make those environmental attributes available for subscription by individual customers.
- Participating customers will be able to purchase, at a fixed cost per MWH, RECs that are being generated from up to 2,000 megawatts (MW) from existing renewable portfolios.

Unbundled REC Retirement Programs

Simple Solar and Flex REC Programs

- Allows customers to support the growth of renewable energy while **reducing their electric-based carbon footprint** by matching, for a per kWh fee, a portion of their monthly energy usage with RECs.
- **Flex RECs** - Option is available to customers who purchase a monthly minimum of 100,000 kWhs of RECs and who contract with the company for a fixed quantity and term.

Social Justice & Community Impact Programs

Community Solar Program and Income-Qualified Community Solar (IQCS) Pilot

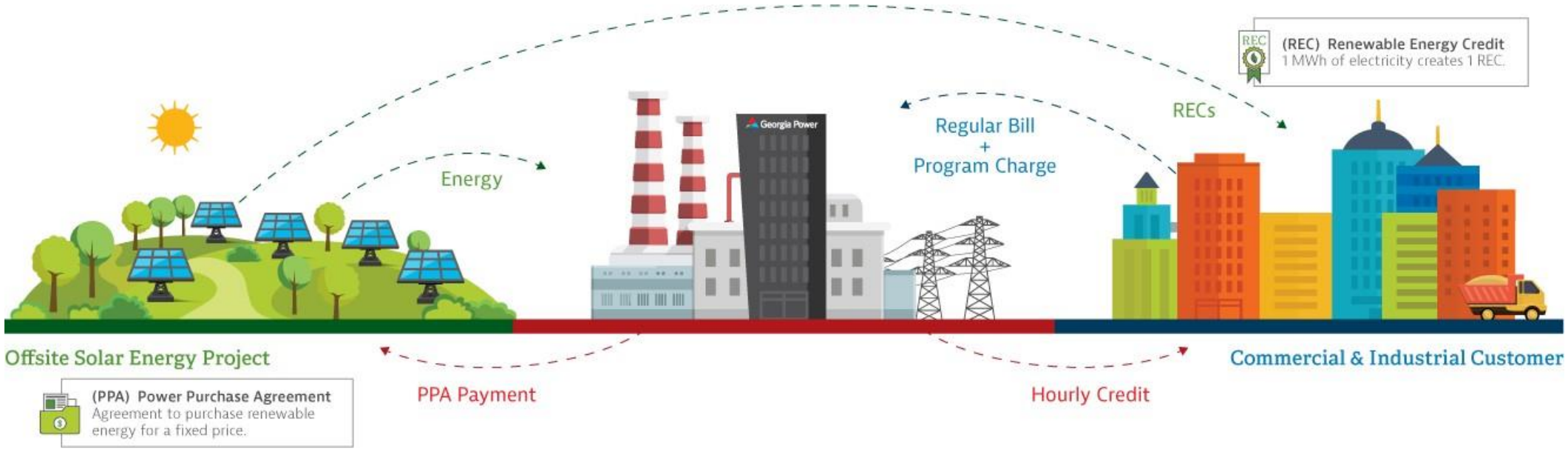
- Customers can subscribe to a portion of a **local solar farms'** production.
- **IQCS Pilot** - Will provide up to 5,000 income-qualified customers access to energy generated from Community Solar farms at discounted prices.

Customer Sited Generation Programs

Onsite and/or Dedicated Distributed Energy Resources (DER) Installation

- Renewables and Resiliency energy experts helping customers make informed decisions about DER, including a customized solar installation rate analysis and resiliency solutions.
- **Qualifying Facility** – Assisting customers identify developers to build dedicated renewable facility
- **CCSP Program** – The Company will purchase 100% of the energy from solar facility on customer's property
- **DER Customer Pilot** – The Company is authorized to deploy 250 MW of DER installed on customer's property BTM.

C.A.R.E.S. Pictorial – Pricing Options



Variable Option	Fixed Option
Fixed Program Portfolio Charge per kWh: • Includes PPA supply cost, additional sum, & administrative fee Minimum ten (10) year contract term length Levelized pricing over entire term of Customer Agreement Hourly Credit per kWh: • Hourly operating cost of incremental generation RECs: Retired via attestation	Fixed Program Portfolio Charge per kWh: • Based on Value of RECs in Market • Includes Administrative Fee ($0.25/MWH) Minimum ten (10) year contract term length Levelized pricing over entire term of Customer Agreement No Hourly Credit RECs: Retired via attestation

Retail REC Retire Program (R3)

Reallocation of Existing Resource

1,500 MW
R3
=

Existing Customers	New Customers
750 MW	750 MW

2024 - 2028

Renewable program to reallocate the Renewable Energy Credits (RECs) that are currently assigned to benefit all GPC customers and make those environmental attributes available for subscription by individual customers.

Eligibility:

Customer	Peak Demand	Term Length
Existing Load	≥ 15MW	2 Year Term Length
Economic Development	≥ 50MW	Up to 5 Year Term Length

Subscription Level:

- Limited to 100% of the customer's preceding year's total annual energy consumption
- Cannot include load already participating in any GPC renewable subscription program
- Economic Development Customers – Based on projections of load at the time customer starts program

Program Pricing:

- Fixed per MWh at the time of contracting
- Based on Market Pricing

Simple Solar Program - RECs

OVERVIEW

What is it?

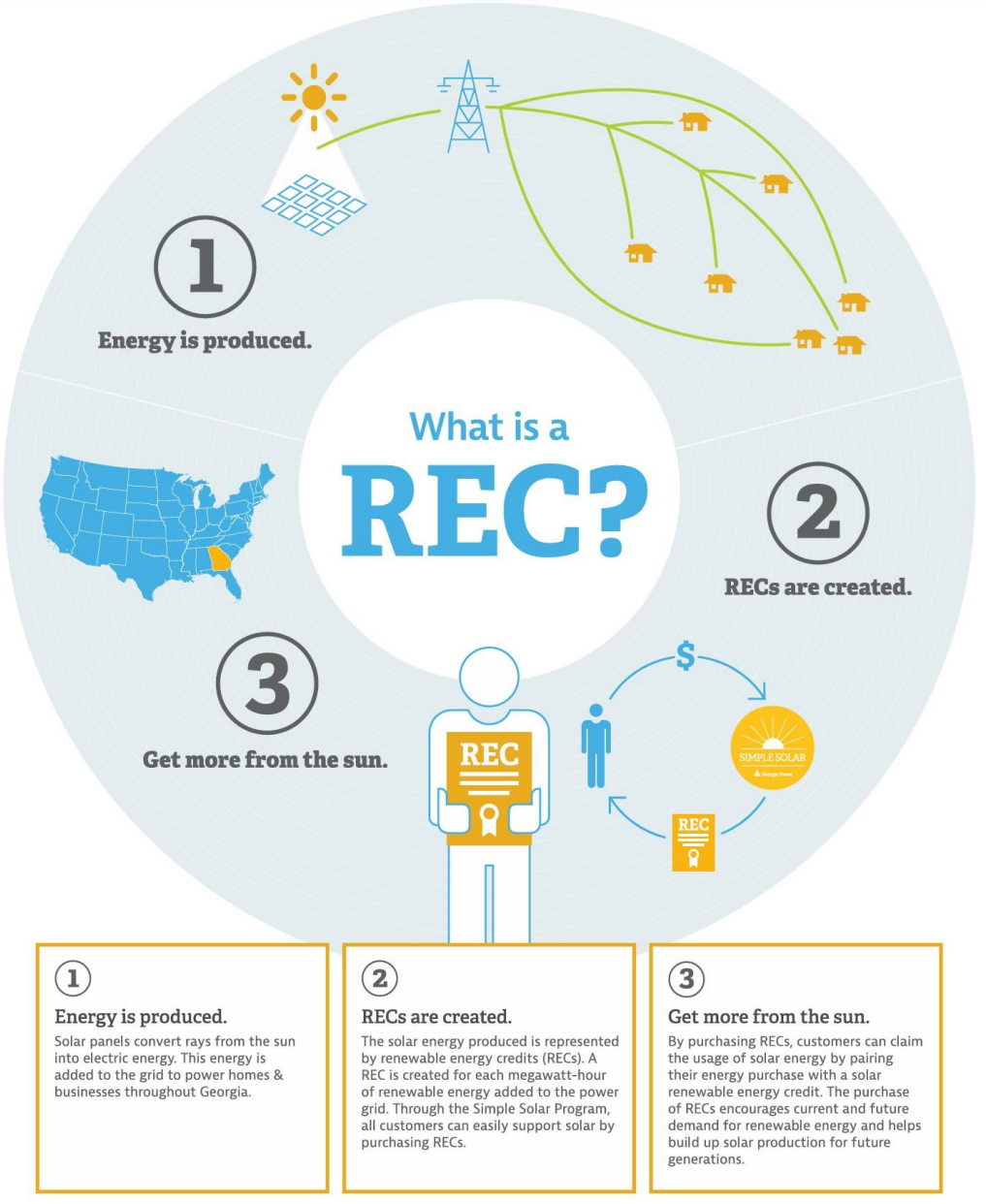
- Simple Solar allows all customers the ability to support the growth of renewable energy while reducing their electric-based carbon footprint
- Can cover either **50% or 100%** of their electric usage
- Renewable Energy Credits or “RECs” are retired on behalf of the participating Customer

Who is it good for?

- Customers that seek to invest in environmental attributes to enhance their personal or business brand – regardless of rate up to 100,000 kWhs per month

PROGRAM PRICING & PARTICIPATION

¢ per kWh Pricing	Customer Participation
@ 1.25¢ /kWh	1850 +



Flex RECs

OVERVIEW

What is it?

- Flex RECs program is like Simple Solar but provides larger customers the ability to support renewable energy through REC retirements

Who is it good for?

- Available to C&I Customers who purchase a monthly minimum of **100,000 kWhs**
- Customers can match up to 100% of their energy usage

PROGRAM PRICING & PARTICIPATION

¢ per kWh Price	Monthly kWh Tiers
@ 1.25¢ /kWh	First 100,000
@ 1.0¢ /kWh	Next 150,000
@ 0.75¢ /kWh	Next 350,000
@ 0.625¢ /kWh	Next 400,000
@ Market Price + 5%	All Remaining

Customer Build Solar Installation Program Options

Renewable & Nonrenewable Resources Tariff (RNR)

- Customer installs solar on premise and generation off-sets customer usage.
  - Excess generation is credited to customer at the Annual Solar Avoided Cost + 4 cents / kWh
- Solar installation sizes are limited
  - **Residential** ≤ 10 kW (AC)
  - **Commercial** ≤ 250 kW (AC) or no more than 125% of customers' peak demand
- Interconnection Agreement & Fee required
  - Interconnection Fee
    - ✓ Residential = $100 per Application
    - ✓ Commercial = $200 per Application
  - Customer responsible for any GPC system upgrade costs to accommodate interconnection

2023 Annual Solar Avoided Cost rate = 2.898¢ per kWh

Energy Offset (EO)

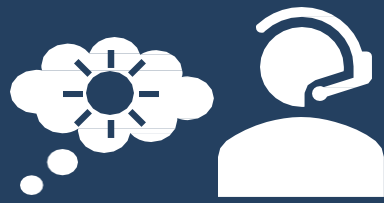
- Customer installs solar on premise and generation off-sets customer usage.
- Customers are not credited for any excess energy delivered to the grid.
- No eligibility or size requirements
- Interconnection Agreement & Witness Test required
  - Interconnection Fee
    - ✓ Residential = $100 per Application
    - ✓ Commercial = $200 per Application
  - Customer responsible for any GPC system upgrade costs to accommodate interconnection

Qualifying Facility (QF)

- Georgia Power purchases 100% of the excess energy, at the standard hourly avoided energy cost.
- Renewable Facility Size ≤ 80 MW or a co-generation facility of any size
- No requirement to be Georgia Power customer, but must go through a study and sign a QF agreement

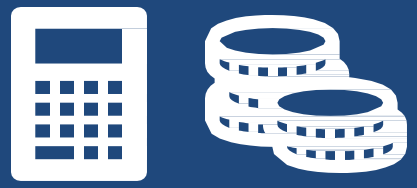
BTM Customer Project Journey Process

All customers installing a behind-the-meter solar system is required to sign an Interconnection Agreement. GPC provides education and resources ahead of the installation process



INQUIRY

Typically, this is the first touch-point, in which a Renewables Project Manager will discuss the inquiring customer's goals & needs and provides information about ALL solar installation options and solar program options. GPC will offer to perform a **SOLAR ANALYSIS** as a follow-up.



ANALYSIS

Upon request, a customer is provided with a customized solar analysis, based on their specific energy usage, peak demand, location, rate, roof space and available programs, to guide them on potential energy/bill savings. If the customer is interested in **INSTALLING** solar, GPC directs them to a list of installers, including GPC Utility Services.

***NOTE**: not all INQUIRIES opt for an ANALYSIS.*

INSTALLATION

Whether a customer is participating in a program or just offsetting their energy, they must submit an application for interconnection of a behind the meter system. Once the application is approved through PowerClerk, the customer may then install the system and will sign an Interconnection Agreement. The system is then tested and the customer receives Permission to Operate.

Customer Connected Solar Program (CCSP)

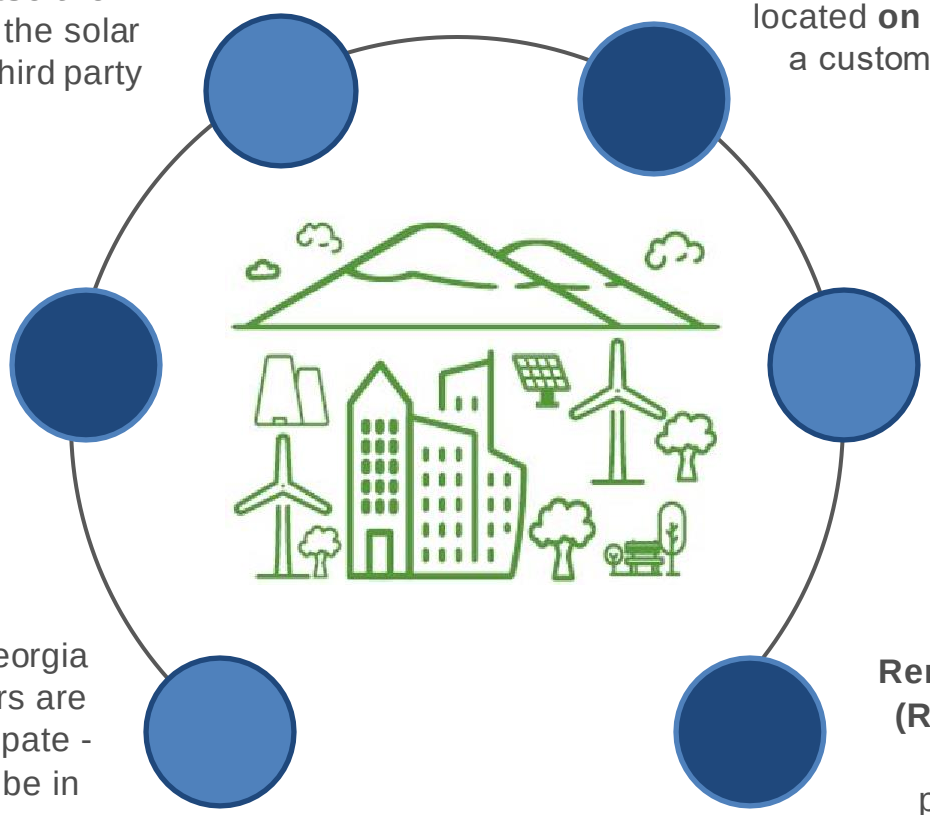
25 MW AC

CCSP Program

Customers must **own, lease, or lease the production** of the solar facility from a third party

Solar facility must be located **on or adjacent to** a customer's premise

Projects can be sized from **1 kW** up to **3 MW AC, capped at 125% of peak demand**

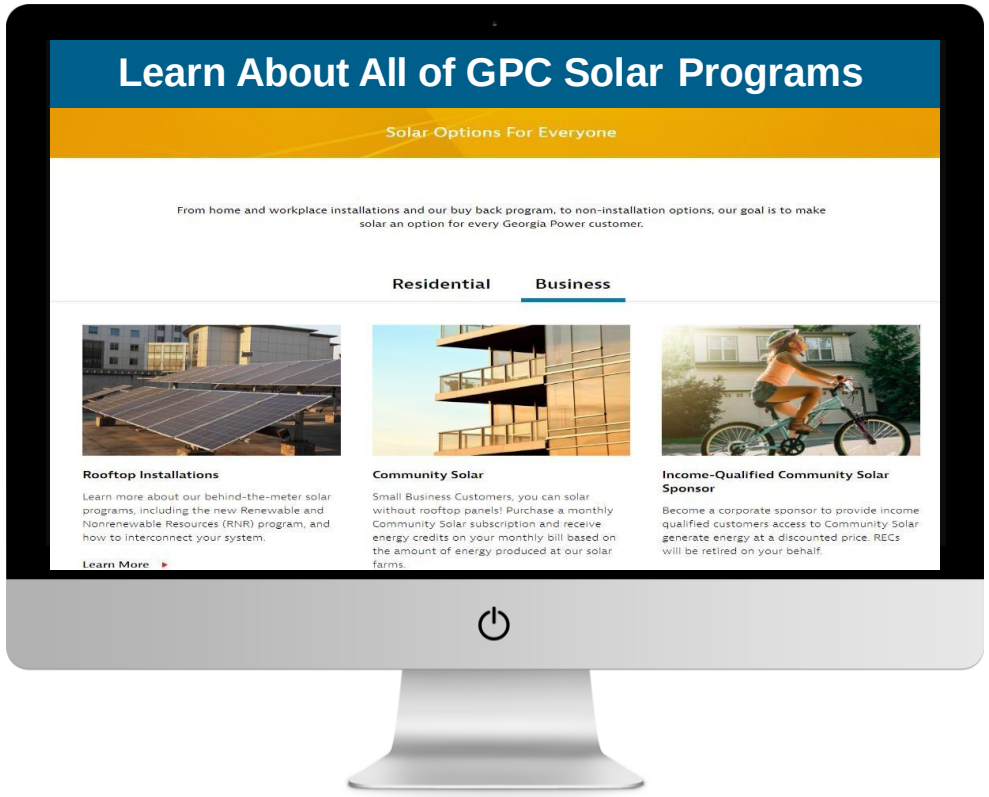


Payments will be made **directly to customer**

Only existing Georgia Power customers are eligible to participate - contracts must be in the **customer's name**

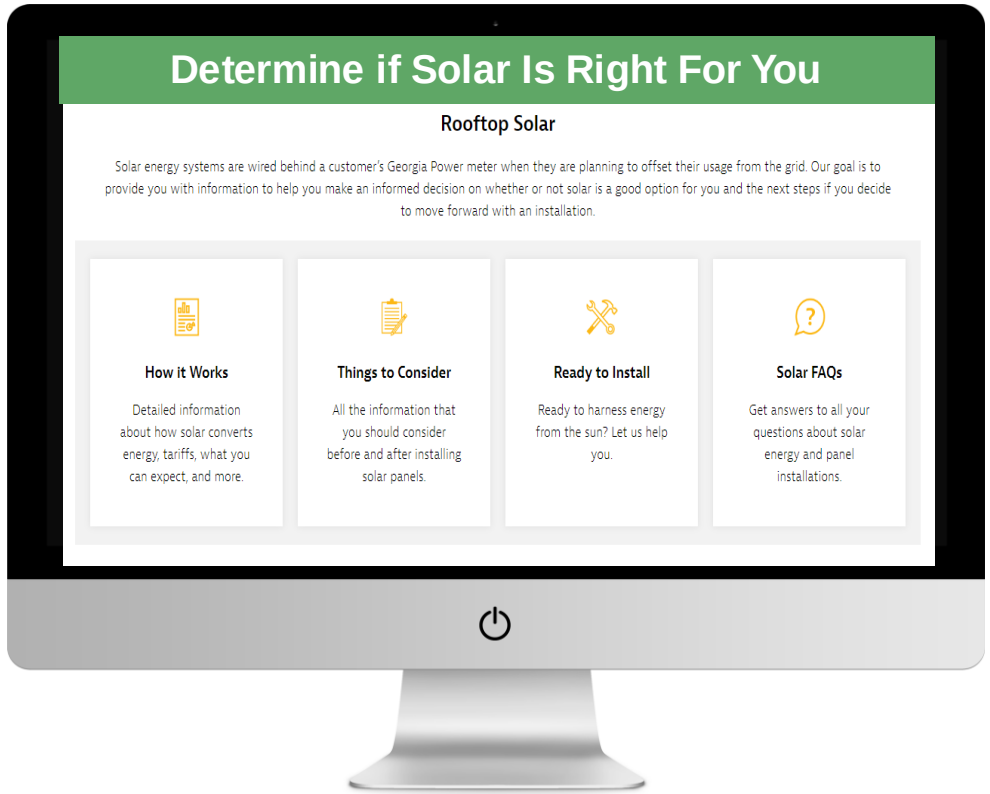
Renewable Energy Credits (RECs) retired by Georgia Power on behalf of participating customers

Resources



GPC Solar Program

Georgiapower.com/Solar



Rooftop Solar Options

Georgiapower.com/BTM

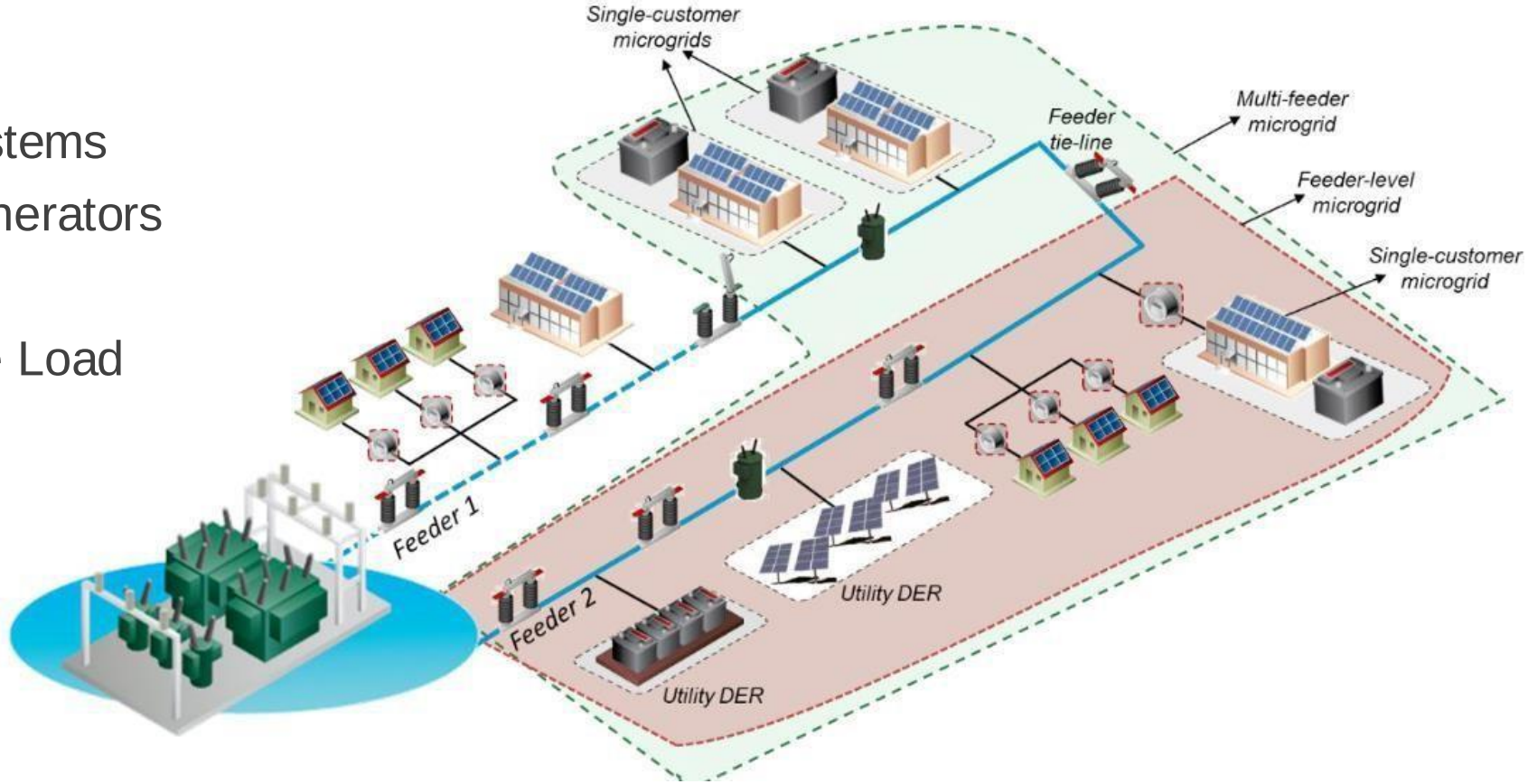
Resiliency (DER) Solutions

Georgia Power

What are DERs?

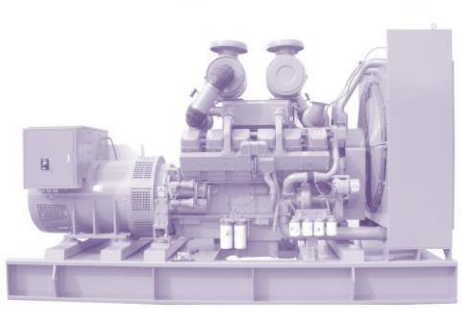
Distributed Energy Resources (DER) include assets such as:

- Standalone Solar Arrays
- Rooftop Solar Panels
- Microgrids
- Battery Energy Storage Systems
- Diesel and Natural Gas Generators
- Electric Vehicles
- Demand Response/Flexible Load
  - Thermostats
  - Hot Water Heaters,
  - Interruptible Loads, etc.



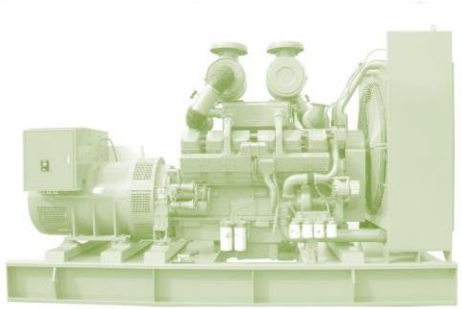
GPC Resiliency Programs At-A-Glance

Common Program Elements: 1) Customer-sited, 2) New resource, 3) Back-up service, 4) Dispatchable, 5) Benefits to the system, 6) GPC controls resource



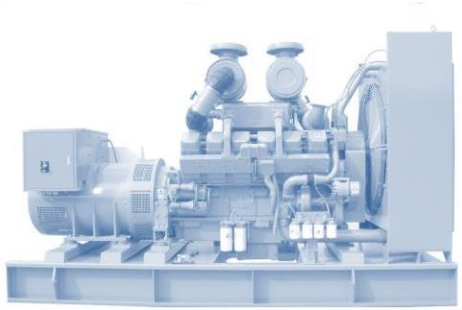
DER Customer Pilot

- GPC-owned
- Demand-side, does not push to grid
- No capital outlay - fixed monthly payment & credit
- Type of rate impacts credit
- Must be >200kW load per premise, >1MW aggregate demand reduction



DER Colocation Program

- GPC-owned
- Supply-side, pushes back to grid, studies required
- Upfront lump sum payment
- Rate does not impact credit value
- Must be >10MW generation output per premise



DER Customer Owned Program

- Supply-side, pushes back to grid, studies required
- Fixed monthly credit up through 2031
- Rate does not impact credit value
- Must be 250kW-10MW per premise, >1MW aggregate generation output per customer

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DER Customer Pilot

Resiliency Asset Service (RAS) Tariff

- GPC will provide a resiliency service via a new, customer-sited DER behind the meter
- GPC will design, procure, install, own, operate, and provide maintenance to all equipment and recover the cost from the participating customer as a levelized monthly payment
- RAS Tariff will include a Service Agreement that determines the scope, pricing, and commercial terms of a customized resiliency solution

Demand Response Credit (DRC) Tariff

- Allows GPC to utilize assets under the RAS Tariff during a system reliability event
- GPC will provide participating customer with a fixed and levelized credit over the contract life depending on asset availability to offset the cost of the DER

DER Colocation Program

DER Colocation (DCL) Tariff

A program through which GPC-owned, dispatchable DER will be made available to qualifying C&I customers to support resiliency:

- GPC will own, operate and maintain a new dispatchable DER in front of the customer meter.
- Provides customers with enhanced resiliency and GPC use of the DER asset in economic dispatch.
- Participating customers will pay an upfront lump sum payment. The credit is automatically included and will be equal to **75% of the system value**
- System must be equal or greater than 10MW.
- Customers must enter a service agreement.

DER Customer Owned Program

DER Customer Owned (DCO) Tariff

A program allowing customers to receive a credit for their own new systems in exchange for GPC use of the DER asset in economic dispatch.

- GPC will operate and control customer-owned, new dispatchable DERs that have firm fuel supply.
- DER can be dispatched for system use for both economic and reliability purposes.
- System must be 1 MW or greater, but less than 10 MW, located at customer premise. Customers may aggregate assets at multiple accounts to meet the 1 MW minimum requirement, provided that each account's DER is 250 kW or greater.
- Customer will receive a monthly credit is based upon **75% of the system value** that the DER provides.
- Customers can participate through 2031 and must enter a service agreement.

Resiliency Programs Comparisons

	DER Customer Pilot	DER Colocation	DER Customer Owned
Tariff(s)	RAS-1 / DRC-1	DCL-1	DCO-1
DER Asset Ownership	GPC	GPC	Customer
Capable of pushing to the Grid	No	Yes	Yes
DER Metered Separately	No	Yes	Yes
Max Term Length	Asset Life	Asset Life	Through 2031
Technology Allowed	Dispatchable	Dispatchable with Firm Fuel Supply	Dispatchable with Firm Fuel Supply
Eligibility	RAS: 200kW Annual Peak Load DRC: 1000kW Demand Reduction but can aggregate facilities if each is > 200kW	Installed asset nameplate ≥ 10MW	Installed asset nameplate ≥ 1MW and < 10MW, can aggregate if each is 250kW or greater
Levelized Monthly Program Tariff Cost / Credit	RAS: Capital and O&M Costs DRC: 100% Capacity Value (Firm Load Only)	Capital and O&M Costs less 75% of system value	Credit for 75% of the system value
Fuel Cost Responsibility	Customer	GPC	GPC
Operational Use Cases	Local Outage Extreme Supply and Demand Conditions	Local Outage Economic Dispatch	Local Outage Economic Dispatch*
Rate limitations	Certain Marginal Rates Ineligible	No limitations	No limitations
Program Cap	250 MW	-	-
PSC Approval Prior to Construction	No	Yes	Yes

*Customer cannot utilize DER for other purposes (i.e., peak shaving) during the contract period

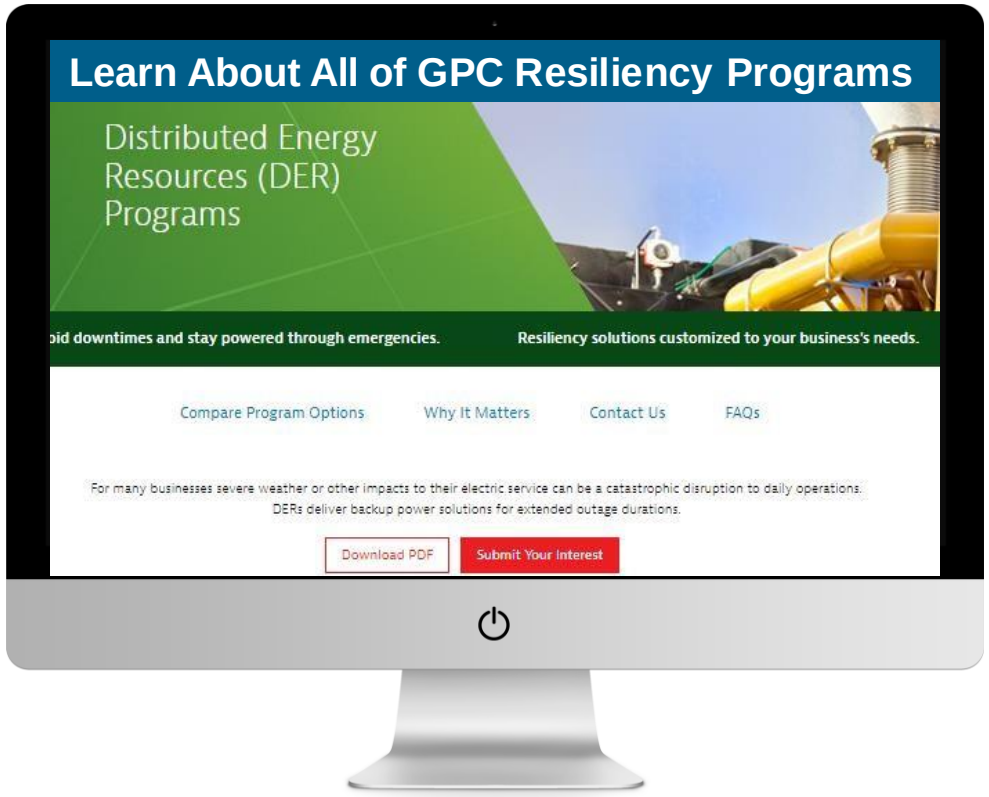
Resiliency Program Alternatives

➢ Curtailable Load Program

- ➢ Similar to existing DPEC program, but with **longer term** and **higher credit value**
- ➢ Customer can use an **existing or new resource** (or no resource at all) to reduce load
- ➢ Customer retains **flexibility** to use their resource **for energy arbitrage or peak shaving**
- ➢ Offers another way for customers to **save money** while adding resiliency to their business
- ➢ Program begins 1/1/2025, but can get customers in the pipeline in advance

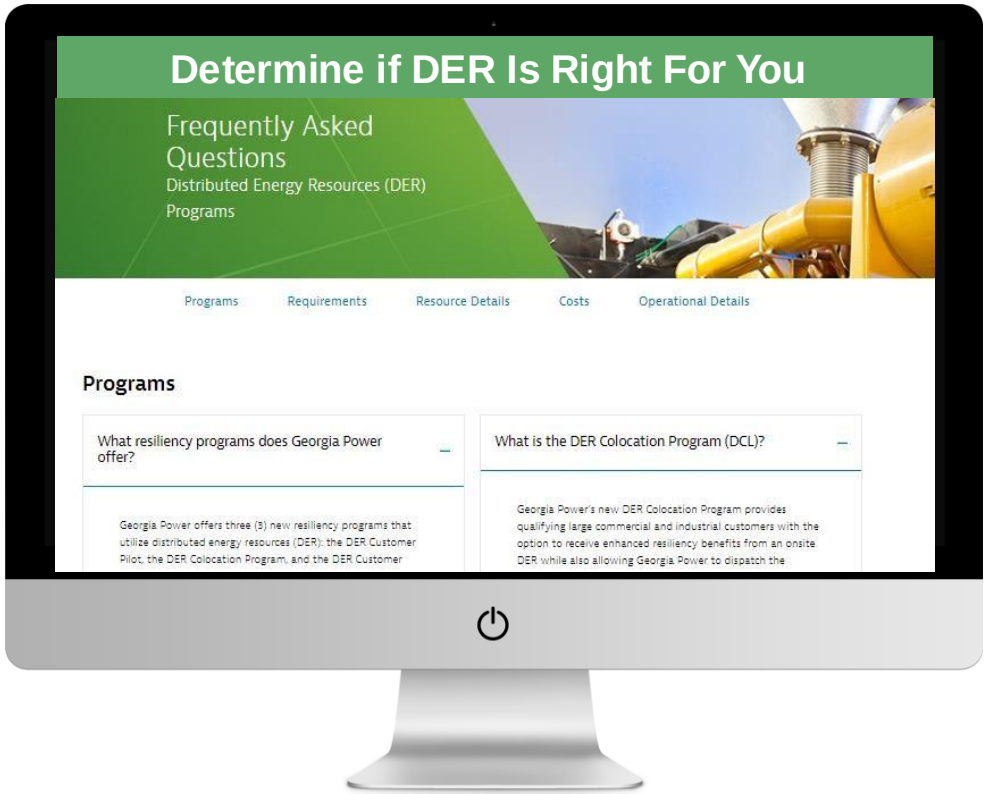
	Demand Plus Energy Credit + Industrial Load Retention Rider (grandfathered)	**Demand Plus Energy Credit (current)**	**New Curtailable Load (CL)**
Tariff(s)	DPEC-5 + ILR-4	DPEC-5	CL-1
Credit Value Determination	per the tariff	per the tariff	custom calculation
Term Length	1 Year	1 Year	6 Years
Eligibility	200kW Demand Reduction	200kW Demand Reduction	200kW Demand Reduction
Forgiveness	Yes	Yes	No
Credit Value	Better	Good	Best

Resources



GPC Resiliency Program

Georgiapower.com/Resiliency



Georgiapower.com/Resiliency/Resiliency-faqs.html

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