

Renewable Development



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Georgia Power Company's Qualifying Facilities (QF) Fundamentals



Public Utilities Regulatory Policies Act (“PURPA”)

- Legislative Purpose:
 - To combat the “energy crisis” of the 1970s
 - To promote energy conservation through cogeneration
 - To encourage alternative sources of power generation
- Established a class of non-utility generators comprised of small power producers and co-generators – collectively referred to as Qualifying Facilities, or QFs.
- Federal Energy Regulatory Commission (“FERC”) delegated PURPA implementation to the states and state regulatory commissions.

Purchase Requirements

- PURPA requires electric utilities to purchase the electric energy and capacity made available by QFs.
 - Rate for purchase must reflect the cost that the purchasing utility can avoid as a result of obtaining energy and capacity from these sources rather than generating an equivalent amount itself or purchasing the energy and capacity from someone else (“avoided costs”)
 - The purchase obligation only extends to those QFs in a utility’s service territory
 - The purchase obligation related to capacity only extends when the host utility has a capacity need
- Rates must be:
 - just and reasonable,
 - in the public interest, and
 - may not discriminate against QFs.

What is a Qualifying Facility?

Cogeneration Facility

- A generating facility that produces electricity and another form of useful thermal energy (such as heat or steam) at the same time in a way that is more efficient than the production of either form of energy separately.
- The electrical, thermal, chemical or mechanical output must be used (1) in a productive and beneficial manner and (2) fundamentally (>50%) for industrial, commercial, residential or institutional purposes and not for electric generation.

Small Power Production Facility

- A generating facility of 80 MW or less whose primary energy source is renewable (hydro, wind or solar), biomass, waste or geothermal resources.

FERC Requirements:

	Small Power Producer	Cogenerator
Size	Maximum facility size is 80MW (in the aggregate)*	No size limit
Fuel	- Hydro, Wind, Solar, Geothermal Resources, Biomass or Waste - 75% or more of the total energy output must be from these sources	
Certification	- Certification is required for QFs larger than 1 MW in size - Two ways to become a QF: (1) Self-Certification, and (2) Application to FERC - See: http://www.ferc.gov/industries/electric/gen-info/qual-fac/obtain.asp	
Efficiency/ Use	None	See 18 U.S.C. §292.205 for specific details

* The 80MW includes the facility for which certification is sought and any other small power production facility using same energy source, owned by same person/affiliate, and is located at same site. A facility is considered to be located at the same site if the electric generating equipment at one facility is within one mile of the electric generating equipment at the other facility (“One Mile Rule”).

Implementation of PURPA in Georgia:

- The Georgia Public Service Commission (“GPSC”) has jurisdiction over regulated utilities in Georgia and the avoided cost methodologies they use to calculate payments to QFs.
- GPSC Docket No. 4822 – Establishes the avoided cost methodology for capacity and energy payments to QFs pursuant to PURPA based on the peaker methodology.
 - For QF’s seeking a contract for capacity and/or energy for a fixed term and a fixed price, GPSC Rules and Orders require QFs to participate in RFPs (request for proposal) to ensure ratepayer indifference
- GPSC Docket No. 19279 – Approved the proxy unit methodology for eligible QFs contracts.
- GPSC Docket No. 16573 – (Green Energy Docket) – Requires Georgia Power to file an annual Solar Avoided Cost Determination.
- GPSC Rule § 515-3-4-.04(3): Provides for the RFP procedures and related exceptions (QFs up to 30 MW in size are exempt from the RFP requirement.)

Standard Offer Contracts Available to QFs

- Pro Forma Standard Contract for the Purchase of Non-Firm Energy from a Qualifying Facility.
 - Always available for QFs that are up to 30 MW in size
- Pro Forma Standard Contract for the Purchase of Firm Capacity and Energy from a Qualifying Facility.
 - Available in the year in which a current IRP identifies a capacity need for QFs up to 30 MW in size
- Standard Contract for the Purchase of Firm Capacity and Energy from Renewable Qualifying Facility Utilizing the Proxy Unit Methodology.
 - Available to QFs who can meet the availability and delivery requirements; obtained by submitting a notice of intent in a traditional RFP on or before the bid due date

Note: A fixed priced contract pursuant to a legally enforceable obligation to provide energy and/or capacity over a specified term is available to a QF. Due to ratepayer risk associated with fixed payments based on projections, QF would need to provide benefits to ratepayers commensurate with the size of the added forecast risk, such as availability, dispatchability, reliability, operational forecast information or ensure ratepayer indifference, and offer the proposal into one of the Company's RFPs.

Comparison Chart of Standard QF Contract Options

Contract Provisions	Standard Non-Firm (Energy Only)	Standard Firm (Capacity & Energy)	Proxy (Capacity & Energy)
Energy Payment	System Lambda; Pricing based on fixed formula	System Lambda; Pricing based on fixed formula	Market
Capacity Payment	None	Peaker Methodology used; can be market based or fixed; available in years where a Capacity need has been identified in the IRP	Weighted
Dispatchability Requirement	None	None	QF Choice
Performance Security	None	None	\$85/kW
Liquidated Damages	None	None	Yes
Delivery/Availability Requirements	None	90%; Must deliver specified capacity and meet availability requirement or the capacity payment is reduced	96%

Standard Firm Capacity & Energy Contract Options

Option A: Fixed Annual Capacity Payments

- Specified capacity payments for long-term contract.
 - Capacity payment based on the economic carrying cost (ECC) of the most expensive incremental capacity resource added in the subject year (based on a peaking resource).
- Minimum 90% availability required for full capacity payment.
 - Pro-rata capacity payment reduction between availability of 90% and 0%.
- Standard avoided hourly energy cost based on fixed formula approved by the GPSC.
- Event of default results in termination of the agreement /exercise of all remedies available at law or in equity.

Option B: Market Based Capacity Payments

- The capacity payment for the first annual period is specified in the contract.
 - Capacity payment based on the economic carrying cost (ECC) of the most expensive incremental capacity resource added in the subject year (based on a peaking resource);
 - Capacity payment for each subsequent annual period determined at time need is filled for subject year. Otherwise, same basis as first annual period.
- Minimum 90% availability required for full capacity payment
 - Pro-rata capacity payment reduction between availability of 90% and 0%.
- Standard avoided hourly energy cost based on fixed formula approved by the GPSC.
- Event of default results in termination of the agreement/exercise of all remedies available at law or in equity.

QF Proxy Contract

In years in which Georgia Power's IRP has identified a capacity need, an RFP is issued to fill the need. QFs can notice into a current RFP, and if facility availability requirements are met, may elect to provide energy and capacity to Georgia Power under a contract using the proxy unit pricing methodology. The proxy unit and pricing awarded to QFs are determined based on the outcome of the RFP Process.

Proxy contract terms and conditions:

- Availability: Seasonal Availability Percentage (SAP): QF guarantees minimum SAP of 96%
- Performance Security of \$85/kW Required per GPSC Order throughout the term of the agreement
- Early Termination:
 - Failure to achieve required commercial operation dates results in forfeiture of monthly capacity payments and payment of damages
 - Standard Regulatory Out if the GPSC fails to approve the contract
 - Financing Out
- Typical Default Provisions included

Interconnection Options for QFs

QF is responsible for all costs associated with interconnection.

- If QF is located **inside** the Georgia Power service territory:
 - QF can connect on Distribution or Transmission depending on the size and location of the facility.
 - On Transmission, QF submits Interconnection Application to Southern Company
 - On Distribution, QF submits Interconnection Application to Georgia Power
- If QF is located **outside** the Georgia Power service territory:
 - QF can utilize the FERC OATT interconnection process if QF can connect into the Georgia Integrated Transmission System (ITS).
 - Note: facilities located outside the Southern Control Area are responsible for transmission service to the Georgia ITS.
 - QF responsible for line losses
 - QF paid only for capacity and energy delivered to Georgia Power
 - QFs located outside the Georgia Power service territory and interconnecting to Distribution must coordinate any purchases with the territorial service provider.

Interconnection Process

- The process for executing an interconnection agreement runs parallel with the process for executing a QF contract:
 - QF submits Interconnection Application
 - Scoping meeting occurs
 - QF returns point of interconnection selection to be studied
 - QF pays for Interconnection Study and enters Study Agreement
 - Interconnection Study results are provided to QF
 - QF and Georgia Power execute Interconnection Agreement

Resources

- **Georgia Power:**

- <http://georgiapower.com/>
- Contact: Georgia Power Company Renewable Resources Department, Phone: (404) 506-4016.

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Atlanta, GA 30308-3374

- **Georgia Public Service Commission:**

- <http://www.psc.state.ga.us>

- **FERC website for QF information:**

- <http://www.ferc.gov/industries/electric/gen-info/qual-fac.asp>

- **FERC website for QF qualification/certification information:**

- <http://www.ferc.gov/industries/electric/gen-info/qual-fac/obtain.asp>