

Canoochee Electric Membership Corporation

Distributed Generation Facility Interconnection Agreement

This agreement made _____, 20__ between Canoochee Electric Membership Corporation (hereinafter called "Cooperative"), and _____ located at _____ (hereinafter called the "Customer Generator").

WITNESSETH:

WHEREAS, the Cooperative is an electric membership corporation providing retail electric service; and

WHEREAS, the Customer Generator is a member of the Cooperative; and

WHEREAS, the Customer Generator desires to install, own, operate and maintain a distributed generation facility as defined in the Cooperative's Distributed Generation Policy; and

WHEREAS, the Customer Generator desires to interconnect with the Cooperative's electric distribution system (hereinafter called "System") of the Cooperative and has complied with the provisions for the interconnection contained in the Cooperative Distributed Generation Policy; and

WHEREAS, the Customer Generator desires to operate its generation equipment in parallel with the Cooperative's System.

NOW THEREFORE, it is understood and agreed that the Cooperative shall permit the Customer Generator to connect its generation system to the System and to operate its generation equipment in parallel with the System subject to the following terms and conditions:

1. COST OF INTERCONNECTION AND PROTECTIVE EQUIPMENT:

The Customer Generator shall be responsible for all costs of installing, testing, operating and maintaining protective equipment and/or electrical facilities required to interconnect the Customer's generation equipment with the System and for providing net billing service.

2. OPERATING LIMITS:

Operation of Customer Generator-owned parallel generating equipment shall not compromise the quality of electric service to other members on the system. The Customer Generator's parallel generating equipment shall meet the following minimum requirements:

- A. **Voltage** - The Customer Generator shall be capable of operating its generating equipment at a voltage level of plus/minus 6% of nominal system voltage. Utility grade negative sequence/under-voltage relaying shall be used to trip the equipment off the line for negative excursions exceeding 8.25% of nominal for a maximum duration of six electrical cycles. Positive excursions exceeding 10% of nominal voltage shall cause the equipment to trip off line in one second maximum total clearing time. Voltage regulating equipment shall maintain stable excitation levels with negligible hunting (less than 2% of nominal phase current). The Cooperative and Generator Customer will refer to the current version of ANSI standard pertaining to this matter if further guidance is needed.
- B. **Flicker** - Parallel operation of the generating equipment shall not cause voltage flicker in excess of 2% of nominal line voltage, as measured at the primary terminals of the Customer Generator's generator interface transformer.
- C. **Frequency** - While operating in parallel with the System, the Customer Generator must provide a utility grade precision over/under frequency relay calibrated to trip for frequency excursions exceeding plus/minus 0.25 Hz for greater than 10 electrical cycles on a 60 Hz base.
- D. **Power Factor** - Customer Generator-owned generation shall employ automatic means of reactive power regulation while operating in parallel with the System. The Customer Generator's generating equipment shall be capable of operation within the range of 0.8 lagging to 0.8 leading power factor as required by the Cooperative.
- E. **Harmonics** - Total current harmonic distortion shall not exceed 5.0%. Total voltage harmonic distortion shall not exceed 5.0%, with a limit of 1.0% on any individual harmonic. Special consideration will be given to regenerative drive systems, and invertors will be reviewed on an individual case-by-case basis.
- F. **Stability** - While operating in parallel with the System, the Customer Generator's generating equipment shall maintain a stable output level with no noticeable hunting exhibited. In the event a system instability condition arises due to Customer Generator-owned generation, it is the Customer Generator's responsibility to take measures to rectify the source of instability.

3. **GENERATOR INTERFACE TRANSFORMER:**

The generator interface transformer is intended to provide isolation of the Customer Generator's generating equipment from the System. The inherent impedance of the transformer will minimize the impact on the System due to faults originating at the Customer Generator's generation equipment. This transformer may consist of an existing transformer serving the Customer Generator's loads or a dedicated transformer dictated by generator of prevailing system characteristics. The Cooperative determines interface transformer specifications and the determination of ownership of said transformer shall be the Cooperative's decision.

4. **GENERATOR PARALLELING BREAKER:**

It is required that a generator-paralleling breaker be of draw-out construction, electrically operated, and rated at a minimum as a five electrical cycle device for fault clearing or tripping.

5. SYNCHRONIZATION:

It is the Customer Generator's responsibility to provide proper synchronizing of its parallel generating equipment. The Cooperative assumes no liability for any Customer Generator-owned generation and assumes that the Customer Generator operates its equipment at its own risk. Synchronizing equipment shall be capable of matching frequency within plus/minus 0.05 Hz and plus/minus 10 electrical degrees phase angle prior to paralleling breaker closure. Voltage shall be matched within plus/minus 4%.

6. SAFETY:

- A. Operation of Customer Generator-owned generation equipment shall not present a safety hazard to the Cooperative employees, other members connected to the System, or the public at large. Under no circumstances shall the Customer Generator-owned generation be used or be capable of energizing a dead System circuit. A positive means of disconnection and locking out the Customer Generator-owned generation equipment with visible air-gap shall be provided to insure safety of Cooperative operating personnel during line maintenance. This disconnecting means may be via a lockable air-break disconnect or by a lockable draw-out circuit breaker.
- B. It is not the intent of this document to specify protection of the Customer Generator's generator. Protection of the Customer Generator's generating equipment is the responsibility of the Customer Generator and the Cooperative assumes no liability for damage or failure of the Customer Generator's generation equipment.
- C. The Customer Generator must provide verification that a qualified independent electrical engineer licensed to practice in Georgia has certified that the required manual disconnect switch has been installed properly; that the distributed generation facility has been installed in accordance with the manufacture's specifications; and that the installation meets all applicable safety, power quality, and interconnection requirements established by the National Electrical Code, the National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, American National Standards Institute, National Electric Manufacturers Association and Underwriters Laboratories, as well as any federal, state and local inspections, standards and codes that pertain to the installation.
- D. The Customer Generator must provide verification that the vendor has certified that the distributed generation facility, which has been installed, is in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories.
- E. Prior to the initial interconnection of the Customer Generator's distributed generation facility to the Cooperative's distribution system, the Customer Generator will submit to the Cooperative a copy of the signed jurisdictional

approval (PERMIT) for Customer Generator's distributed generation facility from the local government entity with jurisdiction over the Customer Generator's distributed generation facility (generally the local building and inspections department).

- F. In the case of static inverter-connected renewable fuel generators with an alternating current capacity in excess of 10 kilowatts of demand, the Customer Generator must have the inverter settings inspected by the Cooperative. The Cooperative may impose a fee on the Customer Generator for such inspection.
- G. In the case of non-static inverter-connected renewable fuel generators, the Customer Generator must interconnect according to the Cooperative's interconnection guidelines, and the Cooperative must inspect all protective equipment settings. The Cooperative may impose a fee on the Customer Generator for such inspection.

7. LIMITATION OF LIABILITY AND IDEMNIFICATION:

Notwithstanding any other provision in the Agreement, with respect to the Cooperative's provision of electric service to Customer Generator and the services provided by the Cooperative pursuant to this Agreement, the Cooperative's liability to Customer Generator shall be limited as set forth in accordance with this paragraph.

For the purposes of this Agreement, a Force Majeure event is any event: (a) that is beyond the reasonable control of the affected Party; and (b) that the affected Party is unable to prevent or provide protection against by exercising reasonable diligence, including the following events or circumstances, but only to the extent that they satisfy the preceding requirements: acts of war, public disorder, legal cease and desist orders, rebellion, or insurrection, floods, hurricanes, earthquakes, lightning storms, or other natural calamities; explosions or fires; strikes, work stoppages or labor disputes; embargoes; and sabotage. If a Force Majeure prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing and will keep the other Party informed on a continuing basis as to the scope and duration of the Force Majeure event. The affected Party will specify the circumstances of the Force Majeure event, its expected duration, and the steps that the affected Party is taking to mitigate the effect of the event on its performance. The affected party will be entitled to suspend or modify its performance of obligations under this Agreement, but will use reasonable efforts to resume its performance of obligations under this Agreement as soon as possible. *ALL PROVISIONS NOTWITHSTANDING, IN NO EVENT SHALL THE COOPERATIVE BE LIABLE TO THE CUSTOMER GENERATOR FOR ANY INTEREST, LOSS OF ANTICIPATED REVENUE, EARNINGS, PROFITS, OR INCREASED EXPENSE OF OPERATIONS, LOSS BY REASON OF SHUTDOWN OR NON-OPERATION OF CUSTOMER GENERATOR'S PREMISES OR FACILITIES FOR ANY INDIRECT, INCIDENTAL, OR CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED, IN WHOLE OR PART, TO THIS AGREEMENT.* The Cooperative shall not be liable in any event for consequential damages.

The Customer Generator shall assume all liability for and shall indemnify the Cooperative and its members, trustees, directors, officers, managers, employees, agents, representatives, affiliates, successors and assigns for and shall hold them harmless from and against any claims, losses, costs, and expenses of any kind or character to the extent that they result from the Customer Generator's design, construction, installation, operation or maintenance of the Facilities or Interconnection Facilities. Such Indemnity shall include, but is not limited to, financial responsibility for (a) monetary losses; (b) reasonable costs and expenses of defending an action or claim; (c) damages related to death or injury; (d) damages to property; and (e) damages for the disruption of business.

The Cooperative and Customer Generator shall each be responsible for the safe installation, maintenance, repair, and condition of their respected lines, wires, switches, or other equipment or property at the point of interconnection. All equipment installed and paid for wholly by the Cooperative shall be owned, operated, and maintained by the Cooperative; and all equipment installed or paid for through requirement of this agreement that is not specifically designated as the Cooperative's by written agreement, shall be owned, operated, and maintained by the Customer Generator. The Cooperative does not assume any duty of inspecting the Customer Generator's lines, wires, switches, or other equipment or property. The Customer Generator assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith.

8. INSURANCE:

The Customer Generator agrees to take out and maintain throughout the term of this Agreement adequate liability insurance; and, if applicable, worker's compensation and employer's liability, as required by law, covering all the Customer Generator's employees or representatives who perform any obligations of the Customer Generator set for herein.

- A. The Cooperative shall be named as an Additional Insured on all the Customer Generator's policies of insurance.
- B. A current certification of the Customer Generator's insurance policies with the Cooperative being named as an Additional Insured must be on file with the Cooperative at all times. The policies of insurance shall be in such form and issued by such insured as shall be satisfactory to the Cooperative. The Customer Generator shall furnish the Cooperative a certificate evidencing compliance with the foregoing requirements within the first 30 days of each insurance policy renewal term, and shall provide not less than 30 days prior written notice to the Cooperative of any cancellation or material change in the insurance.

9. TESTING:

The Customer Generator shall retain a qualified independent electrical engineer licensed to practice in Georgia to maintain and annually test system protective relaying for the Customer Generator's generating equipment. Upon demand, the Customer Generator shall produce records of testing and relay setting sheets for review by the Cooperative.

The Customer Generator shall verify proper tripping and lockout of the generator system for all defined faults, as determined by the Cooperative during final review of system relay requirements. Failure to maintain records will be grounds for refusal of permission to operate parallel generating equipment. Under no circumstances shall parallel generating equipment be operated with inoperative or defective protective relays. The Cooperative, at the expense of the Customer Generator, will perform testing and maintenance of inter-tie package.

10. ACCESS:

The Cooperative shall have access at all times to the Customer Generator's premises for the purpose of meter reading and performing operations and maintenance activities. The Cooperative reserves the right, but not the obligation, to inspect the Customer Generator's distributed generation facility.

11. COMPLIANCE PROCEDURE:

The Cooperative reserves the right to automatically or manually disconnect the Customer Generator's distributed generation facility without prior notice whenever, at the Cooperative's sole discretion, the Customer Generator is deemed by the Cooperative to not be in compliance with the minimum interconnection requirements as specified by this Agreement. The interconnection will remain open until corrective action is taken and suitable testing is completed.

12. INTERCONNECTION AND METERING CHARGES:

The Cooperative shall install, own and operate metering equipment that it deems necessary to permit an accurate determination of the quantity of energy delivered by the Cooperative to the Customer Generator and the quantity of energy generated and delivered by the Customer Generator to the Cooperative's distribution system. Metering equipment may include, but not be limited to, external potential transformers (PT's) and current transformers (CT's) that allow for proper capture of all necessary data to properly bill for demand and power factor, as set forth in the cooperative's rate schedules. The Customer Generator shall pay the Cooperative for the costs incurred by the Cooperative to provide the interconnection of Customer Generator's distributed generation facility to the Cooperative's distribution system and to provide metering service, in accordance with the rates, terms and conditions of the Cooperative's Distributed Generation Tariff (DG-30).

13. TERM OF SERVICE:

This agreement shall become effective on the date at the top of this document and shall remain in effect until terminated by either party giving the other thirty (30) days' written notice; provided, however, the Cooperative may also terminate this Agreement by giving thirty (30) days' written notice to the Customer Generator upon any breach of this Agreement by the Customer Generator or upon failure of the Customer Generator's distributed generation facility to generate energy in parallel with the Cooperative's distribution system for six consecutive months.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, all as of the day and year first at the top of this document.

ATTEST:

ATTEST:

Canoochee EMC

Title _____

Customer Generator

Title _____