

# Coweta-Fayette EMC

## Distributed Generation Interconnection Policy

### OBJECTIVE

To establish for the interconnection of distributed generation facilities and for providing net energy metering services.

### A. DEFINITIONS

The following words and terms shall have the following meanings unless the context clearly indicates otherwise:

1. **“Billing period”** means, as to a particular member, the time period between the dates on which the Cooperative normally reads the retail service meter for billing purposes.
2. **“Bi-directional meter”** is a meter capable of measuring (but not necessarily displaying) electricity flow in both directions.
3. **“Bi-directional metering”** means measuring the amount of electricity supplied by the Cooperative and the amount of electricity fed back to the Cooperative by the member’s distributed generation facility using the same meter.
4. **“Member Generator”** means a member of the Cooperative that owns and operates a distributed generation facility.
5. **“Distributed generation facility”** means a facility owned and operated by a member of the Cooperative for the production of electrical energy that:
  - a. Uses a solar Photovoltaic system, fuel cell, or wind turbine;
  - b. Has peak generating capacity of not more than 10 kW for a residential application and 100 kW for a commercial application;
  - c. Is located on the member’s premises;
  - d. Operates in parallel with the Cooperative’s distribution facilities;
  - e. Is connected to the Cooperative’s distribution system via the member’s side of the Cooperative’s retail service meter; and
  - f. Is intended primarily to offset part or all of the member generator’s requirements for electricity.
6. **“Excess Net energy”** is the difference between the electricity generated by the distributed generation facility and the electricity consumed by the net metering member during the billing period.
7. **“Net metering member”** means a member generator receiving net metering service.
8. **“Net metering”** means measuring the difference, over the billing period, between electricity supplied to a net metering member from the electric grid and the electricity generated and fed into the electric grid by the net metering member, using a bi-directional meter or an additional single direction meter.

9. **“Renewable Energy Sources”** means energy supplied from technologies as approved in the Georgia Green Pricing Accreditation Program.

**B. AVAILABILITY**

The Cooperative will purchase energy from distributed generation facilities on a first come, first serve basis, only until the cumulative generating capacity of all renewable resources equals 0.2 percent of the Cooperative’s annual peak demand in the previous year. The capacity of distributed generation facilities used by residential members shall not exceed 10 kW. The capacity of distributed generation facilities used by non-residential members shall not exceed 100 kW.

**C. NET METERING**

The Cooperative will furnish, install, own and maintain a bi-directional meter to measure the kWh usage supplied by the Cooperative to the net metering member in addition to the kWh usage supplied by the net metering member to the Cooperative.

**D. OBLIGATIONS TO PURCHASE EXCESS NET ENERGY**

When the energy generated by the member’s distributed generation facility exceeds the energy supplied by the Cooperative during the billing period, the net metering member shall receive a credit for the excess net energy pursuant to the Cooperative’s Net Energy Metering Rider, Schedule NEM-2 (see Appendix C); else, the applicable rate schedule will apply.

**E. CHARGES FOR INTERCONNECTION AND NET METERING**

The Member Generator shall be responsible for all costs of installing, operating and maintaining protective equipment and/or electrical facilities required to interconnect with the Cooperative’s electric distribution system. The Member Generator shall be charged for the direct cost incurred by the Cooperative as a result of the interconnection and for providing net metering service. Said charges will be determined in accordance with the Cooperative Net Energy Metering Rider (see Appendix C).

**F. APPLICATION PROCESS**

1. Submit a completed Distributed Generation Interconnection Application (see Appendix A), including all attachments thereto, to the Cooperative at least thirty (30) days prior to the intended date to interconnect the distributed generation facility to the Cooperative’s distribution system.
2. A representative from Coweta-Fayette EMC will review the Application and notify the prospective member within thirty (30) days if the Application is approved or not approved.

**G. REQUIREMENTS FOR INITIAL INTERCONNECTION**

1. A Member Generator may begin operation of his Distributed Generation Facility on an interconnected basis when:
  - a. The Application Process set forth in Section F above has been completed
  - b. The member has executed the Distributed Generation Interconnection Agreement (see Appendix B) with the cooperative and is in compliance with all requirements set forth

therein, including all applicable safety, power quality, and interconnection requirements established by the National Electric Code, National Electric Safety Code, the Institute of Electrical and Electronic Engineers, and Underwriters Laboratories. The Cooperative may adopt additional safety, power quality, and interconnection requirements.

- c. The Member Generator provides to the cooperative verification that the disconnect switch is installed and operable in compliance with the National Electrical Code, the National Electrical Safety Code and the Institute of Electrical and Electronics Engineers (including, without limitation, IEEE Standards 1547 and 1547.1).
- d. The Member Generator provides to the cooperative verification that the distributed generation facility is installed and operable in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories.
- e. The Member Generator provides to the cooperative a copy of the final, signed, jurisdictional approval (Permit) for the member's distributed generation facility from any local government entity with jurisdiction over the member's distributed generation facility (generally the local building and inspection department).
- f. The Member Generator has paid to the Cooperative all applicable charges and fees set forth in the Distributed Generation Interconnection Agreement.
- g. The Member Generator has made all payments required by and has otherwise complied with the conditions for extension or modification of the Cooperative's distribution system as may be determined herein and asset forth in the Cooperative's service rules and regulations.

## **H. METERING**

The Cooperative will install metering equipment to measure energy (kWh) delivered by the Cooperative to the member and the energy delivered from the member to the Cooperative.

**Coweta-Fayette EMC**  
**Distributed Generation Interconnection Policy**

**Appendix A**

**Distributed Generation Interconnection**  
**Application**

**Coweta Fayette Electric Membership Corporation**  
**Distributed Generation Facilities and Net Energy Metering Interconnection Application**

Member must not operate their generation facilities in parallel with Coweta-Fayette EMC's system until they have received written authorization for parallel operation from Coweta-Fayette EMC. Unauthorized parallel operation of members generating facilities could result in injury to persons and/or damage to equipment or property.

**Section 1 – Contact Information**

**A. Applicant Information (Where the generation facility will be installed)**

Name: \_\_\_\_\_  
Mail Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Facility Location (if different from above): \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Daytime Phone Number: \_\_\_\_\_ Account Number: \_\_\_\_\_  
Email: \_\_\_\_\_

**B. Contractor Information**

Company Name: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
Mail Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Business Number: \_\_\_\_\_ Email: \_\_\_\_\_

**Section 2 – Generating Facility Information**

Generator Type (check one): Solar \_\_\_\_\_ Wind \_\_\_\_\_ Fuel Cell \_\_\_\_\_ Hydro \_\_\_\_\_ Other \_\_\_\_\_  
Generator Manufacturer: \_\_\_\_\_  
Generator Model Name and Number: \_\_\_\_\_  
Generator Power Rating (kW): \_\_\_\_\_  
Inverter Manufacturer: \_\_\_\_\_  
Inverter Model Name/Number: \_\_\_\_\_  
Inverter Power Rating (kW): \_\_\_\_\_  
Disconnect Switch Manufacturer/Model Number: \_\_\_\_\_  
Disconnect Switch Rating (A): \_\_\_\_\_

**Section 3 – Single-Line Diagram**

A single-line diagram is required showing the member's installation of its generating facilities and the interconnection to Coweta-Fayette EMC's system. Devices such as the service panel, disconnect switch, inverters, all generators, circuit breakers, etc. must contain the electrical rating and operating voltages.

**Section 4 – Installation Information**

Installation Date: \_\_\_\_\_ Proposed Interconnection Date: \_\_\_\_\_

**Section 5 – Certifications**

A copy of the signed jurisdictional approval (permit) for Member's generating facility from the local government entity with jurisdiction over the Member's project (generally the local building and inspections department).

Note: This will not delay the application process, but is required to complete the interconnection notification.

**I hereby certify that, to the best of my knowledge, all of the information provided in this Application is true and correct.**

**Applicant Signature:** \_\_\_\_\_

**Coweta-Fayette EMC**  
**Distributed Generation Interconnection Policy**

**Appendix B**

**Distributed Generation Interconnection**  
**Agreement**

**Coweta-Fayette EMC**  
**NET METERING AND INTERCONNECTION AGREEMENT**

This Agreement made \_\_\_\_\_, 20\_\_\_\_, between Coweta-Fayette Electric Membership Corporation (hereinafter called "Cooperative"), and \_\_\_\_\_ (hereinafter called the "Net Metering Member"),

**WITNESSETH:**

WHEREAS, the Cooperative is a non-profit electric membership corporation providing retail electric service; and

WHEREAS, the Net Metering Member is a member of the Cooperative; and

WHEREAS, the Net Metering Member desires to install, own, operate and maintain a renewable resource distributed generation (hereinafter called "DG") facility primarily intended to supply all or part of its total electric power and energy requirements; and

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

WHEREAS, the Net Metering Member desires to operate its DG facility in parallel with the Cooperative's System.

NOW THEREFORE, it is understood and agreed that the Cooperative shall permit the Net Metering Member to connect its DG facility 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 Net Metering Member shall be responsible for all costs of installing, operating and maintaining protective equipment and/or electrical facilities required to interconnect the Member's DG facility with the System.

2. OPERATING LIMITS:

Operation of Net Metering Member-owned parallel DG facility shall not compromise the quality of electric service to other members on the System. The DG owner shall be responsible for complying with all applicable local, independent, state and federal codes such as, but not limited to: building codes, National Electric Code (NEC), National Electrical Safety Code (NESC), noise, and emissions standards. The DG facility shall comply with the latest revisions of the ANSI/IEEE standards applicable to the installation, especially IEEE 1547 "Standard for Interconnecting Distributed Resources with Electric Power Systems." The Net Metering parallel DG facility shall meet the following minimum requirements:

a) Voltage

The DG facility must be equipped with adequate protection and control to trip the unit off line in the event of an undervoltage or overvoltage within the trip time indicated below.

V = Nominal System Voltage	Maximum Trip Time
$V < 50\%$	10 Cycles
$50\% \leq V < 88\%$	120 Cycles
$110\% < V < 120\%$	60 Cycles
$V \geq 120\%$	10 Cycles

The Net Metering Member's DG facility shall not cause the System voltage to go outside the requirements of ANSI C84.1-1995, Range A.

b) Flicker

Parallel operation of the DG facility shall not create objectionable flicker for other members or cause voltage flicker to exceed the visible flicker limit as defined by IEEE 1543.

c) Frequency

While operating in parallel with the System, a DG facility rated 30 kW or less shall trip off line within 10 cycles if the frequency goes above 60.5 Hz or below 59.3 Hz. DG facilities greater than 30 kW shall (1) trip off line within 10 cycles if the frequency exceeds 60.5 Hz, (2) be capable of time delayed disconnection for frequencies in the range of 59.8 Hz to 57 Hz, and (3) trip off line within 10 cycles if the frequency is below 57 Hz.

d) Power Factor

DG facilities shall employ automatic means of reactive power regulation while operating in parallel with the System. The DG facility 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

The DG facility shall not be a source of excessive harmonic voltage and current distortion. Limits for harmonic distortion will be as published in the latest issue of ANSI/IEEE 519, "Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems."

f) Stability

While operating in parallel with the System, the Net Metering Member's DG facility shall maintain a stable output level with no noticeable hunting exhibited. In the event a system instability condition arises due to Net Metering Member-owned DG, it is the Net Metering Member'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 Net Metering Member's DG facility from the System. The inherent impedance of the transformer will minimize the impact



on the System due to faults originating at the Net Metering Member's DG facility. This transformer may consist of an existing transformer serving the Net Metering Member's loads or a dedicated transformer dictated by generator or prevailing system characteristics. Interface transformer specifications are determined by the Cooperative and determination of ownership of said transformer shall be at the Cooperative's option.

4. GENERATOR PARALLELING BREAKER:

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

5. SYNCHRONIZATION:

It is the Net Metering Member's responsibility to provide proper synchronizing of its parallel DG facility. The Cooperative assumes no liability for any Net Metering Member-owned DG facility and assumes that the Net Metering Member operates its equipment at its own risk. The DG facility shall parallel with the System without causing a voltage fluctuation at the point of common coupling greater than  $\pm 5\%$  of the prevailing voltage level of the System and meet the flicker requirements of 2.b.

6. SAFETY:

- a) Operation of Net Metering Member-owned DG facilities shall not present a safety hazard to the Cooperative employees or other members connected to the System or the public at large. Under no circumstances shall the Net Metering Member-owned DG be used or be capable of energizing a dead System circuit. A positive means of disconnecting and locking out the Net Metering Member-owned DG facility 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 drawout circuit breaker. Islanding of the Net Metering Member-owned DG (a situation whereby the Net Metering Member's loads and DG remains connected to the bus) shall be prevented by protective relaying specified by the Cooperative based on individual review of the Net Metering Member's proposed DG facility or through the use of DG packages designed for interconnected operation that have been certified by a nationally recognized testing and certification laboratory, and has been tested and listed by the laboratory for continuous interactive operation with and electric distribution system in compliance with the applicable codes and standards of IEEE 1547, IEEE 1547.1 and UL 1741.
- b) It is not the intent of this document to specify protection of the Net Metering Member's DG. Protection of the Net Metering Member's DG facility is the responsibility of the Net Metering Member and the Cooperative assumes no liability for damage or failure of the Net Metering Member's DG facility.
- c) The Net Metering Member must provide verification that a qualified independent electrical contractor licensed to practice in Georgia has certified that the required manual disconnect switch has been installed properly; that the DG facility has been installed in accordance with the manufacturer'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 and the Institute of Electrical and Electronics Engineers;

- d) The Net Metering Member must provide verification that the vendor has certified that the DG facility which has been installed is in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories;
- e) In the case of static inverter-connected renewable fuel generators with an alternating current capacity in excess of 10 kilowatts, the Net Metering Member has had the inverter settings inspected by the Cooperative. The Cooperative may impose a fee on the Net Metering Member of no more than \$50 for such inspection;
- f) In the case of non-static inverter-connected renewable fuel generators, the Net Metering Member has interconnected according to the Cooperative's interconnection guidelines and the Cooperative has inspected all protective equipment settings. The Cooperative may impose a fee on the net metering Member of no more than \$50 for such inspection.

7. TESTING:

Testing of DG will be performed in accordance with IEEE 1547. The Net Metering Member agrees to submit, upon request from the Cooperative, any records regarding operation and maintenance of the DG facility.

The Net Metering Member shall verify proper tripping and lockout of the DG facility 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 DG. Under no circumstances shall parallel DG be operated with inoperative or defective protective relays.

Commercially owned DG greater than 10 kW shall retain a qualified independent electrical engineer licensed to practice in Georgia to maintain and annually test system protective relaying for the Member-owned DG.

8. COMPLIANCE PROCEDURE:

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

9. INDEMNIFICATION:

Net Metering Member agrees to indemnify, defend, and hold Cooperative harmless from any and all damages, losses, claims, interest, awards, fines, costs, attorneys' fees, and expenses of any kind incurred or suffered by Cooperative arising out of or related to:

- a) The breach or inaccuracy of any representation or verification made by Net Metering Member in or pursuant to this Agreement;
- b) The breach or violation of, or default under, any covenant, agreement or undertaking of Net Metering Member contained in this Agreement; and
- c) Any actions or inactions with respect to the Net Metering Members' obligations under this Agreement.

10. **LIMITATION OF LIABILITY:**

As defined and set forth in the Georgia Cogeneration and Distributed Generation Act of 2001, O.C.G.A. § 46-3-50 et seq., Cooperative shall not be liable to any person (including Net Metering Member) directly or indirectly, for loss of property, injury, or death resulting from the interconnection of a cogenerator or distributed generation facility to its electrical system. Notwithstanding anything in this Agreement to the contrary, in no event shall Cooperative be liable to the Net Metering Member for special, punitive, exemplary, incidental, consequential or indirect damages, diminution in value, lost revenue, margins or profits or loss of opportunity, whether based on contract, tort, strict liability or otherwise, and whether or not arising from the Cooperative’s sole, joint or concurrent negligence, strict liability or other fault for any matter relating to this Agreement.

11. **NET METERING AND INTERCONNECTION CHARGE:**

The Net Metering Member shall pay the Cooperative in accordance with the rates, terms and conditions of the “Net Energy Metering Rider” attached to and made a part of this Agreement.

12. **TERM:**

This Agreement shall become effective on the date first above written and shall remain in effect until 1 year following the start of the initial billing period and thereafter until terminated by either party giving to the other 3 months’ notice in writing; provided, however, the Cooperative may terminate this Agreement prior to the expiration of the term hereof upon any breach of this Agreement by the Net Metering Member.

The parties hereto have executed this Agreement all as of the day and year first above written.

**Net Metering Member**

**Coweta-Fayette EMC**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Attest

\_\_\_\_\_  
Attest

**Coweta-Fayette EMC**  
**Distributed Generation Interconnection Policy**

**Appendix C**

**Net Metering Rider**

# **COWETA-FAYETTE ELECTRIC MEMBERSHIP CORPORATION**

## **NET ENERGY METERING RIDER Schedule NEM-2**

### **A. PURPOSE**

The purpose of this rider is to establish the methods and procedures for determining credits, payments, and charges applicable to members of the Cooperative who own and operate a distributed generation facility as defined in the Cooperative's Distributed Generation Facility Policy.

### **B. APPLICABILITY**

This rider applies to any member of the Cooperative owning and operating a distributed generation facility as defined in the Cooperative's Distributed Generation Facility Policy. The capacity of a distributed generation facilities used by residential Members shall not exceed 10 kW and the capacity of a distributed generation facility used by a non-residential Member shall not exceed 100 kW. The Cooperative will only be required to purchase energy as specified in Code Section 46-3-55 from an eligible Member generator on a first-come, first-served basis until the cumulative generating capacity of all renewable energy sources equals 0.2 percent of the utility's annual peak demand in the previous year.

### **C. DEFINITIONS**

The following words and terms shall have the following meanings unless the context clearly indicates otherwise:

1. "Billing period" means, as to a particular Member, the time period between the dates on which the Cooperative normally reads the retail service meter for billing purposes.
2. "Bi-directional meter" is a meter capable of measuring (but not necessarily displaying) electricity flow in both directions.
3. "Bi-directional metering" means measuring the amount of electricity supplied by the Cooperative and the amount fed back to the Cooperative by the Member's distributed generation facility using a single meter.
4. "Member Generator" means the owner and operator of a distributed generation facility.
5. "Distributed generation facility" means a facility owned and operated by a Member of the Cooperative for the production of electrical energy that:
  - a. Uses a solar Photovoltaic system, fuel cell, or wind turbine;
  - b. Has peak generating capacity of not more than 10 kW for a residential application and 100 kW for a commercial application;
  - c. Is located on the Member's premises;
  - d. Operates in parallel with the Cooperative's distribution facilities;
  - e. Is connected to the Cooperative's distribution system on either side of the Cooperative's retail service meter; and

- f. Is intended primarily to offset part or all of the Member generator's requirements for electricity.
6. "Excess net energy" is the difference between the electricity generated by the Member's distributed generation facility and the electricity supplied by the Member's distributed generation facility during the billing period. The metered energy flowing back to the Cooperative is considered excess net energy. It is defined as "excess" because it is not consumed by the member.
7. "Net metering Member" means a Member generator receiving net metering service.
8. "Net metering" means the act of measuring the energy, over the billing period, between electricity supplied to a net metering Member from the electric grid and the electricity generated and fed into the electric grid by the net metering Member, using a single bi-directional meter or an additional single direction meter.
9. "Renewable Energy Sources" means energy supplied from technologies as approved in the Georgia Green Pricing Accreditation Program.

#### **D. CONDITIONS OF SERVICE**

1. There must be a written Net Metering and Interconnection Agreement with the Member.
2. The Member must have met all of the conditions of interconnection contained in the Distributed Generation Facilities and Net Metering Policy.

#### **E. TYPES OF NET METERING**

Net Metering will be accomplished using bi-directional metering for distributed generation facilities interconnected on the net metering Member's side of the retail service meter or single directional metering for distributed generation facilities interconnected with the Cooperative's distribution system on the Cooperative's side of the retail service meter.

#### **F. DISPOSITION OF ENERGY**

If the electricity consumed by the net metering Member during the billing period exceeds the electricity generated by the Member's distributed generation facility during the billing period, then all electricity generated by the Member generation shall be deemed to have been used by the net metering Member. This results in no metered energy flowing back to the Cooperative. When the electricity generated by the Member's distributed generation facility during the billing period exceeds the electricity consumed by the Member this energy is deemed excess net energy. Energy as registered by the bidirectional meter as flowing back to the Cooperative shall be purchased by the Cooperative at rates as provided under the Purchase Rate section of this Rider.

## **G. RATES AND CHARGES FOR NET METERING SERVICE**

Each net metering Member shall be charged for electric service under that rate schedule which would otherwise be applicable if the Member was not a net metering Member for all energy supplied to the Member during the billing period. In addition, each net metering Member shall pay a monthly service charge based upon the direct costs to the Cooperative associated with interconnecting the Member's distributed generation facility and with the provision of and administration of net metering services. Said monthly service charge shall include the following:

1. A facilities charge based on the total cost of all facilities installed by the Cooperative, including transformers, protective devices, controls and monitoring equipment times the Cooperative's monthly Fixed Charge Rate.
2. A facilities charge based on the total incremental cost of metering equipment times the Cooperative's monthly Fixed Charge Rate.
3. \$4.00 per month administrative charge.

## **H. PURCHASE RATE**

The rates paid for net energy purchased by the Cooperative shall be based upon the Cooperative's average annual avoided cost of energy. The average annual avoided cost of energy shall be determined in December and applied to qualified net metering Members. The avoided cost for energy shall be applied as follows:

January – December \$.0296 per kWh

The rates as quoted herein may be adjusted at any time at the sole discretion of the Cooperative, to reflect the prevailing avoided cost of energy.

## **I. FIXED CHARGE RATE**

The Fixed Charge Rate of the Cooperative shall be a percentage factor that includes components for the recovery of operations and maintenance expense, administrative and general expense, taxes, depreciation and the cost of capital which are all associated with owning and operating the utility plant necessary for interconnection and for the provision of Net Metering pursuant to this Rider. The Fixed Charge Rate may be modified at any time by the Cooperative to reflect prevailing costs.

## **J. TERM OF SERVICE**

The term of service under this rider shall be the same as that under the Net Metering and Interconnection Agreement.

Effective: 5/26/2015