

# RURAL ELECTRIC CONVENIENCE COOPERATIVE CO.

## Policy 100.51

### Interconnection and Parallel Operation of Distributed Generation

#### OBJECTIVE

To establish safety, reliability and economic standards for interconnection and parallel operation of distributed generation that encourage the development of member-owned on-site electric generation facilities using renewable fuel sources designed primarily to offset the member's electrical requirements while honoring the cooperative's obligation to provide electricity to all members on a cooperative basis.

#### I. DEFINITIONS

**Distributed generation** is defined as any generation built within close proximity to the generating member's load regardless of generation capacity or energy source of such generation and includes but is not limited to:

- A. small scale environmentally friendly generators such as photovoltaics (PV), fuel cells, small wind turbines;
- B. microturbines or reciprocating engines fueled by renewable fuels such as landfill gas or methane gas from digesters;
- C. any qualifying facility (QF) under the Public Utility Regulatory Policies Act of 1978 (PURPA);
- D. any on-site generation interconnected with distribution facilities;
- E. commercial emergency and standby diesel generators installed, for example, in hospitals, hotels and farms;
- F. residential standby generators;
- G. generators installed by a utility at a substation for voltage support or other reliability purposes.

**IEEE STANDARD 1547** – The Institute of Electrical and Electronic Engineers, Inc. (IEEE) Standard 1547 (2003) "Standard for Interconnecting Distributed Resources with Electric Power Systems", as amended and supplemented, at the time the interconnection request is submitted.

**IEEE STANDARD 1547.1** – The IEEE Standard 1547.1 (2005) “Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems”, as amended and supplemented, at the time the interconnection request is submitted.

**NAMEPLATE CAPACITY** – The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer and is usually indicated on a nameplate physically attached to the power production equipment.

**SMALL GENERATOR FACILITY** – The equipment used by an interconnection member to generate, or store electricity that operates in parallel with the electric distribution system with a nameplate capacity of 10 kW or less. A small generator facility typically includes an electric generator, prime mover, and the interconnection equipment required to safely interconnect with the electric distribution system or local electric power system. These facilities have been approved by a nationally recognized testing laboratory or must have been approved by the cooperative under a study process and qualify for expedited review.

**UL STANDARD 1741** – Underwriters Laboratories’ standard titled “Inverters Converters, and Controllers for Use in Independent Power Systems”, November 7, 2005 edition, as amended and supplemented.

**WITNESS TEST** – For lab certified or field approved equipment, verification (either by an on-site observation or review of documents) by the cooperative that the interconnection installation evaluation required by IEEE Standard 1547 Section 5.3 and the commissioning test required by IEEE Standard 1547 Section 5.4 have been adequately performed. For interconnection equipment that has not been lab certified or field approved, the witness test shall also include the verification by the cooperative of the on-site design tests as required by IEEE Standard 1547 Section 5.1 and verification by the cooperative of production tests required by IEEE Standard 1547 Section 5.2. All tests verified by the cooperative are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

## **II. APPLICABILITY**

This interconnection policy applies to cooperative members proposing to install and interconnect small generator facilities that:

- A. Are not subject to the interconnection requirements of MISO/PJM; and
- B. Are designed to operate in parallel with the electric distribution system.

### **III. INTERCONNECTION REQUESTS**

- A. Members seeking to interconnect a generator facility shall submit an interconnection request using the form attached hereto as Attachment A. The request may be eligible for expedited interconnection review if the request is for a small generator facility using lab certified or field approved interconnection equipment.
- B. Interconnection equipment shall be deemed to be lab certified if it is evaluated by a nationally recognized testing laboratory (NRTL) and found to be in compliance with IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity), UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems and NFPA 70 National Electrical Code.
- C. Interconnection equipment shall be deemed to be field approved if within the previous 36 months of the date of the interconnection request, it has been previously approved for use with the proposed small generator facility in a materially identical system application, and the prior approval process included a successful witness test.
- D. The member must submit to the cooperative plans of the proposed installation and must obtain approval for the installation. This approval process will include a review by the cooperative of the effect of the proposed generation on the cooperative's distribution system, including its protective scheme. The member requesting interconnection shall pay the cost of this review. No installation will be permitted that reduces reliability to other members or causes voltage conditions on the system to be outside of the limits of ANSI C84.1 Range A. No installation will be permitted that is expected to produce objectionable harmonics on the system. Any mitigation required to resolve harmonic problems created by a member-owned generator will be completed and paid for by the member.

### **IV. EXPEDITED REVIEW**

- A. The cooperative shall review the application and evaluate the potential for adverse system impacts. Any costs of construction of facilities on the cooperative's system to accommodate the small generator facility shall be paid by the member.
- B. The cooperative shall, within 10 business days after receipt of the interconnection request, inform the applicant that the interconnection request is complete or incomplete and if so, what materials are missing.

- C. The cooperative shall, within 15 business days after the end of the 10 business days noted in B, verify that the small generator facility equipment can be interconnected safely and reliably.
- D. Unless the cooperative determines and demonstrates that a small generator facility cannot be interconnected safely or reliably to its system and provides a letter to the applicant explaining its reasons for denying an interconnection request, the cooperative shall approve the interconnection request subject to the following conditions:
  - 1. The small generator facility has been approved by local or municipal electric code officials with jurisdiction over the interconnections; and
  - 2. A certificate of completion has been returned to the cooperative. Completion of local inspections may be designated on inspection forms used by local inspecting authorities; and
  - 3. The witness test has been successfully completed or waived; and
  - 4. The applicant has signed a standard small generator interconnection agreement and provided proof of insurance or otherwise complied with the terms of the agreement. When an applicant does not sign the agreement within 30 business days after receipt from the cooperative, the interconnection request may be deemed withdrawn unless the applicant requests to have the deadline extended. The request for extension shall not be unreasonably denied by the cooperative.
- E. When a small generator facility is not approved under this expedited review, the applicant may submit a new interconnection request for consideration under the procedures for review of larger capacity generator facilities with a nameplate capacity greater than 10 kW.

## **V. INSURANCE REQUIREMENTS AND INDEMNIFICATION**

- A. Throughout the term of this agreement, the Member shall carry a liability insurance policy issued by a licensed insurance carrier with an A. M. Best rating of B+ or better that provides protection against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the member's ownership and/or operation of the distributed generation facility under this agreement. The limits of such policy shall be at least \$1,000,000.00 per occurrence for those members with small generation facilities. The member shall provide a certificate of insurance containing a minimum 30 day notice of cancellation to the cooperative prior to connection of the member's facility to the cooperative's system.

- B. In the event the member chooses to self-insure, the member shall provide proof of financial responsibility satisfactory to the cooperative and shall indemnify the cooperative, its officers, agents, and employees against all loss, damage, expense and liability to any persons, including members, for injury to or death of persons or injury to property, including but not limited to consequential damages, interest, punitive damages, member's fees and court costs, proximately caused by the indemnifying party's construction, ownership, interconnection, operation, or maintenance of, or by failure of, any of such party's works or facilities used in connection with the operation of the generating facility.

## **VI. MISCELLANEOUS REQUIREMENTS**

- A. The cooperative shall be reimbursed for all costs of interconnection, including all carrying costs, incurred by the cooperative in connecting the member generation facility to the distribution system. Those costs for small generating facilities shall not exceed \$500.00 unless the facility fails initial testing and additional review is necessary.
- B. The cooperative shall have free access to the member's small generation facility and interconnection equipment at all times to monitor operation of the member's equipment, cooperative-supplied service equipment connected to such system, or to disconnect if the facility is not in compliance with the requirements of IEEE 1547 and the non-compliance adversely affects the safety or reliability of the electric system. The cooperative shall provide reasonable notice to the member prior to disconnection of the facility if possible.
- C. The cooperative shall have the right to inspect and approve all plans for parallel generation systems and the interconnection systems prior to initial operation or subsequent operation following modifications.
- D. The member shall make any necessary changes or adjustments to the additional facilities being operated in parallel to eliminate interference on the cooperative's distribution system.
- E. The member shall not energize the cooperative's system during any period of utility service interruption. The member's equipment must contain a disconnect device to which the cooperative has access and which the cooperative can lock in an open position to disconnect, for safety reasons, the member's electric generating facility for the cooperative's electric delivery system.

- F. Electric generation facilities may be disconnected by the cooperative from its system whenever, in the sole opinion of the cooperative, such action is required by an emergency, for reasons of safety or due to interference with service to other members. The facility shall also be subject to the cooperative's requirements for maintaining voltage standards of output and the production of reactive power.
- G. Phase, frequency and voltage of the member's interconnected generation shall be compatible with that provided by the cooperative.
- H. The members shall pay the cost of interconnection including initial and future transmission, distribution, metering, service and other facilities costs necessary to permit interconnected operations with the cooperative.
- I. Any auxiliary or reserve power service required by the member must be arranged in accordance with the terms of the cooperative's applicable policies/rates as modified from time to time.
- J. In the event of a dispute, either party shall provide the other Party with a written Notice of Dispute describing in detail the nature of the dispute. If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may request assistance from a reputable dispute resolution service for assistance in resolving the dispute. The service will select an appropriate dispute resolution venue, (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. Each party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties utilized in the attempt to resolve the dispute. If neither party elects to seek assistance from a dispute resolution service, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this policy.

Adopted: December 20, 2007

Revised: March 31, 2008; June 22, 2009; November 22, 2016 (Effective: November 30, 2016)

Reviewed: April 26, 2010

# ATTACHMENT A

## **Rural Electric Convenience Cooperative**

### Application for Operation of Member-Owned Generation

This application should be completed and returned to the Cooperative Member Service representative in order to begin processing the request. See Member Guidelines for Electric Power Generator Installation and Interconnection for additional information.

INFORMATION: *This application is used by the Cooperative to determine the required equipment configuration for the Member interface. Every effort should be made to supply as much information as possible.*



#### **PART 1**

##### **OWNER/APPLICANT INFORMATION**

Owner/Member

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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**PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)**

Company: \_\_\_\_\_ License/Registration Number \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone

Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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**ELECTRICAL CONTRACTOR (as applicable)**

Company: \_\_\_\_\_ License/Registration Number \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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**TYPE OF GENERATOR (as applicable)**

Photovoltaic \_\_\_\_\_ Wind \_\_\_\_\_ Microturbine \_\_\_\_\_  
Diesel Engine \_\_\_\_\_ Gas Engine \_\_\_\_\_ Combustion Turbine \_\_\_\_\_  
Other \_\_\_\_\_

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**ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION**

The following information is necessary to help properly design the Cooperative member interconnection. This information is not intended as a commitment or contract for billing purposes.

Total Site Load \_\_\_\_\_ (kW)  
Residential \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_  
Generator Rating \_\_\_\_\_ (kW) Annual Estimated Generation \_\_\_\_\_ (kWh)

**Mode of Operation**

Isolated \_\_\_\_\_ Paralleling \_\_\_\_\_ Power Export \_\_\_\_\_

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**DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION**

Give a general description of the proposed installation, including a detailed description of its planned location, the date you plan to operate the generator, the frequency with which you plan to operate it and whether you plan to operate it during on or off-peak hours.

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\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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## PART 2

(Complete all applicable items. Copy this page as required for additional generators)

### SYNCHRONOUS GENERATOR DATA

Unit Number: \_\_\_\_\_ Total number of units with listed specifications on site: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Date of manufacture: \_\_\_\_\_  
Serial Number (each): \_\_\_\_\_  
Phases: Single \_\_\_\_\_ Three \_\_\_\_\_ R.P.M.: \_\_\_\_\_ Frequency (Hz): \_\_\_\_\_ Rated  
Output (for one unit): \_\_\_\_\_ Kilowatt \_\_\_\_\_ Kilovolt-Ampere  
Rated Power Factor (%): \_\_\_\_\_ Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_ Field  
Volts: \_\_\_\_\_ Field Amps: \_\_\_\_\_ Motoring power (kW): \_\_\_\_\_  
Synchronous Reactance (Xd): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Transient Reactance (X'd): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Sub transient Reactance (X'd); \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Negative Sequence Reactance (Xs): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Zero Sequence Reactance (Xo): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Neutral Grounding Resistor (if applicable): \_\_\_\_\_

$I_2^2t$  or K (heating time constant): \_\_\_\_\_  
Additional information: \_\_\_\_\_

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### INDUCTION GENERATOR DATA

Rotor Resistance (Rr): \_\_\_\_\_ ohms Stator Resistance (Rs): \_\_\_\_\_ ohms  
Rotor Reactance (Xr): \_\_\_\_\_ ohms Stator Reactance (Xs): \_\_\_\_\_ ohms  
Magnetizing Reactance (Xm): \_\_\_\_\_ ohms Short Circuit Reactance (Xd''): \_\_\_\_\_ ohms  
Design letter: \_\_\_\_\_ Frame Size: \_\_\_\_\_  
Exciting Current: \_\_\_\_\_ Temp Rise (deg C°): \_\_\_\_\_  
Reactive Power Required: \_\_\_\_\_ Vars (no load), \_\_\_\_\_ Vars (full load)  
Additional information: \_\_\_\_\_

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### PRIME MOVER (Complete all applicable items)

Unit Number: \_\_\_\_\_ Type: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Serial Number: \_\_\_\_\_ Date of manufacture: \_\_\_\_\_  
H.P. Rated: \_\_\_\_\_ H.P. Max.: \_\_\_\_\_ Inertia Constant: \_\_\_\_\_ lb.-ft.<sup>2</sup>  
Energy Source (hydro, steam, wind, etc.) \_\_\_\_\_

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### GENERATOR TRANSFORMER (Complete all applicable items)

TRANSFORMER (between generator and utility system)  
Generator unit number: \_\_\_\_\_ Date of manufacturer: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Serial Number: \_\_\_\_\_  
High Voltage: \_\_\_\_\_ KV, Connection: delta wye, Neutral solidly grounded? \_\_\_\_\_  
Low Voltage: \_\_\_\_\_ KV, Connection: delta wye, Neutral solidly g rounded? \_\_\_\_\_  
Transformer Impedance(Z): \_\_\_\_\_ % on \_\_\_\_\_ KVA base.

Transformer Resistance (R): \_\_\_\_\_ % on \_\_\_\_\_ KVA base.  
Transformer Reactance (X): \_\_\_\_\_ % on \_\_\_\_\_ KVA base.  
Neutral Grounding Resistor (if applicable): \_\_\_\_\_

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**INVERTER DATA** (if applicable)

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
Rated Power Factor (%): \_\_\_\_\_ Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_  
Inverter Type (ferroresonant, step, pulse-width modulation, etc): \_\_\_\_\_  
Type commutation: forced line  
Harmonic Distortion: Maximum Single Harmonic (%) \_\_\_\_\_  
Maximum Total Harmonic (%) \_\_\_\_\_

Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

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**POWER CIRCUIT BREAKER** (if applicable)

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
Rated Voltage (kilovolts): \_\_\_\_\_ Rated ampacity (Amperes) \_\_\_\_\_  
Interrupting rating (Amperes): \_\_\_\_\_ BIL Rating: \_\_\_\_\_  
Interrupting medium / insulating medium (ex. Vacuum, gas, oil) \_\_\_\_\_ / \_\_\_\_\_  
Control Voltage (Closing): \_\_\_\_\_ (Volts) AC DC  
Control Voltage (Tripping): \_\_\_\_\_ (Volts) AC DC Battery Charged  
Capacitor  
Close energy: Spring Motor Hydraulic Pneumatic Other: \_\_\_\_\_  
Trip energy: Spring Motor Hydraulic Pneumatic Other: \_\_\_\_\_  
Bushing Current Transformers: \_\_\_\_\_ (Max. ratio) Relay Accuracy Class: \_\_\_\_\_  
Multi ratio? No Yes: (Available taps) \_\_\_\_\_

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**ADDITIONAL INFORMATION**

*In addition to the items listed above, please attach a detailed one-line diagram of the proposed facility, all applicable elementary diagrams, major equipment, (generators, transformers, inverters, circuit breakers, protective relays, etc.) specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection. Also describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.), and its address or grid coordinates.*

**END OF PART 2**  
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**SIGN OFF AREA**

The member agrees to provide the Cooperative with any additional information required to complete the interconnection. The member shall operate his equipment within the guidelines set forth by the cooperative.

\_\_\_\_\_  
Applicant Date



**CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:**

Rural Electric Convenience Cooperative contacts:

Jeff Lancaster, Chris Bridges or Nick Hays

P.O. Box 19

Auburn, IL 62615

Phone: 217-438-6197 or 800-245-7322



**ATTACHMENT B**

**AGREEMENT FOR INTERCONNECTION AND PARALLEL  
OPERATION OF DISTRIBUTED GENERATION**

DATE OF AGREEMENT: \_\_\_\_\_

Rural Electric Convenience Cooperative    hereinafter “Cooperative”

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ hereinafter “Member”

\_\_\_\_\_  
\_\_\_\_\_

This Agreement for Interconnection and Parallel Operation of Distributed Generation (hereinafter “Agreement”) is made and entered the date indicated above between Rural Electric Convenience Cooperative, (hereinafter referred to as “Cooperative”), an electric cooperative organized under the laws of the State of Illinois, and \_\_\_\_\_, (hereinafter referred to as “Member”), a member/owner of the cooperative presently receiving electric service from Cooperative, each hereinafter sometimes referred to individually as “Party” or both referred to collectively as the “Parties”.

In consideration of the mutual covenants set forth herein, and other good and valuable consideration, the sufficiency and receipt thereof is hereby acknowledged, the Parties agree as follows:

**1. Scope of Agreement** – This Agreement addresses the conditions under which the Cooperative and Member agree that one or more generating facilities (herein “distributed generation” and more particularly described in Exhibit A) owned and/or operated by Member with a nameplate capacity of 10 MW or less, can be interconnected at 120/240(V) or less (collectively hereinafter sometimes referred to as the “Facilities” to the Cooperative’s electric power distribution system (hereinafter sometimes referred to as the “System”). This Agreement shall not entitle the Member to electric service beyond the terms of a separate membership agreement for service and to the Cooperative’s rules, policies, regulations, by-laws and rates (hereinafter collectively “Requirements”).

**2. Establishment of Point of Interconnection** –Cooperative and Member agree to interconnect the Facilities at the location(s) specified in Exhibit A “Point of Interconnection” in accordance with the terms of the Cooperative’s policy on Interconnection and Parallel Operation of Distributed Generation and the Institute of Electrical and Electronic Engineers (IEEE) Standards 1547, 1547.1 and UL Standard 1741.

**3. Responsibilities of Cooperative and Member for Installation, Operation and Maintenance of Facilities** – Member will, at member’s cost and expense, install, operate, maintain, repair, and inspect, and shall be fully responsible for, its facilities and interconnection facilities, unless otherwise specified on Exhibit A. Member shall conduct operations of its facilities and interconnection facilities in compliance with all aspects of the cooperative’s requirements and in accordance with industry standards and prudent engineering practice. Maintenance of facilities and interconnection facilities shall be performed in accordance with the applicable manufacturers’ recommended maintenance schedule. Member agrees to cause its facilities and interconnection facilities to be constructed in accordance with Policy 100.51 Interconnection and Parallel Operation of Distributed Generation. The Cooperative shall have the right to inspect and require changes prior to energizing. Phase, frequency and voltage of the member’s interconnected generation shall be compatible with that provided by the cooperative.

Member shall comply with all applicable Federal, State and local laws, regulations, zoning codes, building codes, safety rules and environmental restrictions applicable to the design, installation, operation and maintenance of its facilities and interconnection facilities.

The Cooperative will notify Member if there is evidence that the facilities’ or interconnection facilities’ operation causes disturbance, disruption or deterioration of service to other members served from the System or if the facilities’ or interconnection facilities’ operation causes damage to the System. If this condition persists, the Cooperative shall have the right to disconnect Member from the System. Member will notify the Cooperative of any emergency or hazardous condition or occurrence with Member’s facilities or interconnection facilities which could affect safe operation of the System.

**4. Operator in Charge** – Member shall provide a phone number and address of an individual contact person with knowledge of this agreement, familiar with the installation, maintenance and operation of the interconnection facilities and with the authority to disconnect the facility from the system in the event the cooperative requires doing so.

**5. No Power Sales to Cooperative** - Interconnection of the Facilities with the System does not grant Member the right to export power nor does it constitute an agreement by the Cooperative to purchase or wheel power. Purchase of excess facility capacity is governed by the Cooperative's Net Metering and Cooperative Purchase of Excess Member Owned Generation Capacity.

## **6. Limitation of Liability and Indemnification**

a. Notwithstanding any other provision in this Agreement, with respect to the Cooperative's provision of electric service to Member and the services provided by the Cooperative pursuant to this Agreement, Cooperative's liability to Member shall be limited as set forth in the Cooperative's rules, bylaws, policies, contracts, and terms and conditions for electric service, which are incorporated herein by reference, and in no event shall the Cooperative be liable for loss of profit, loss of operation time, or loss of or reduction in use of any facilities or any portion thereof, increased expense of construction, operation or maintenance, or for any special, indirect, incidental, or consequential damages resulting from the construction, operation or maintenance of the member's facility.

b. For the purposes of this Agreement, a Force Majeure event is any event beyond the reasonable control of the affected party that the affected party is unable to prevent or provide against by exercising reasonable diligence this includes but is not limited to public disorder, 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 event 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 as soon as possible.

c. Member shall be responsible for the safe installation, maintenance, repair and condition of lines, wires, switches, or other equipment or property on its side of the point of interconnection. The Cooperative does not assume any duty of inspecting Member's lines, wires, switches, or other equipment or property and will not be responsible therefore. Member assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith at or beyond the point of interconnection.

**7. Testing and Testing Records** – Member shall perform or cause to be performed such tests as the Cooperative may reasonably require and shall provide to the Cooperative all records of testing. Testing of protection systems shall comply with existing industry standards and practices. These records shall include testing at the start of operation and periodic testing thereafter. Factory testing of pre-packaged interconnection facilities and the protective systems of small units shall be acceptable in the absence of reasonable grounds for additional testing. In the case of a factory test, Member shall provide a written description and certification by the factory of the test, the test results, and the qualification of any independent testing laboratory. In addition, Member shall obtain approval by the Cooperative of the settings of the equipment being installed prior to operation.

**8. Right of Access, Equipment Installation, Removal & Inspection** – The Cooperative shall have free access to the member’s small generation facility and interconnection equipment at all times to monitor operation of the member’s equipment, cooperative-supplied service equipment connected to such system, or to disconnect for good cause, without prior notice to the member, member’s equipment from the cooperative’s distribution system.

The Cooperative shall also have access to Member’s premises and to operational records for any reasonable purpose in connection with the interconnection described in this Agreement, the Requirements, or to provide service to its members.

**9. Disconnection of Facilities** – Member retains the option to disconnect its facilities from the System, provided that Member notifies the Cooperative of the member’s intent to disconnect by giving the Cooperative at least thirty (30) days’ prior written notice. Such disconnection shall not be a termination of this Agreement unless Member exercises rights under Section 12 that do not lead to a resolution of the issue.

Member shall disconnect Facilities from the System upon the effective date of any termination resulting from and required by actions under Section 12.

The Cooperative may disconnect the electric generation facilities from its system whenever, in the sole opinion of the cooperative, such action is required by an emergency, for reasons of safety or due to interference with service to other members. The facility shall also be subject to the cooperative’s requirements for maintaining voltage standards of output and the production of reactive power.

**10. Metering** – The Cooperative shall be reimbursed for all costs of interconnection, including all carrying and metering costs, incurred by the Cooperative in connecting the member generation facility to the distribution system. Metering shall meet accuracy standards required for equivalent electrical services and can be accomplished with standard meters or any devices that meet data collection and accuracy requirements.

**11. Insurance** – Throughout the term of this agreement, Member shall carry a liability insurance policy issued by a licensed insurance carrier with an A. M. Best rating of B+ or better that provides protection against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the member's ownership and/or operation of the DG Facility under this agreement. The limits of such policy for a small generation facility shall be at least \$1,000,000 per occurrence. The member shall provide a certificate of insurance containing a minimum 30 day notice of cancellation to the Cooperative prior to connection of the member's facility to the Cooperative system.

As an alternative to providing insurance coverage, the member may choose to self insure by providing proof of financial responsibility satisfactory to the cooperative and agrees to indemnify the cooperative, its officers, agents, and employees against all loss, damage, expense and liability to any persons, including members, for injury to or death of persons or injury to property, including but not limited to consequential damages, interest, punitive damages, member's fees and court costs, proximately caused by the indemnifying party's construction, ownership, interconnection, operation, or maintenance of, or by failure of, any of such member's works or facilities used in connection with the operation of the generating facility.

**12. Effective Term and Termination Rights** – This Agreement becomes effective when executed by both Parties and shall continue in effect until terminated. This Agreement may be terminated as follows: (a) Member may terminate this Agreement at any time by giving the Cooperative at least sixty (60) days' written notice; (b) Cooperative may terminate upon failure by Member to generate energy from the Facilities within six (6) months after completion of the interconnection; (c) either Party may terminate by giving the other Party at least thirty (30) days prior written notice that the other Party is in default of any of the terms and conditions of the Agreement or the Rules or any rate schedule, regulation, contract, or policy of the Cooperative, so long as the notice specifies the basis for termination and there is opportunity to cure the default; (d) Cooperative may terminate by giving Member at least sixty (60) days notice in the event that there is a material change in an applicable law, or any change in policy or procedure pertaining to distributed generation by the Cooperative's wholesale electric supplier or requirement of any transmission utility, independent system operator or regional transmission organization having responsibility for the operation of any part of the System; (e) Cooperative may terminate this Agreement upon three (3) business days

notice in the event Member ceases to receive electric service from Cooperative or is in default of terms or conditions for electric service; in the event that a Party (i) makes a general assignment or arrangement for the benefit of creditors; (ii) commences an action or proceeding under any bankruptcy, insolvency or similar law for the protection of debtors or creditors, or has commenced against it any such action or proceeding which is not withdrawn or dismissed within thirty (30) days; (iii) otherwise is adjudicated a debtor in bankruptcy or insolvent; (iv) is unable (or admits in writing its inability) generally to pay its debts as they become due; (v) is dissolved or has a resolution passed for its winding-up or liquidation (other than pursuant to a consolidation, acquisition or merger); (vi) seeks or becomes subject to the appointment of an administrator, assignee, conservator, receiver, trustee or similar official for substantially all of its assets; (vii) has a secured party take possession of all or substantially all of its assets or has all, or has substantially all of its assets become subject to an attachment, execution, levy, sequestration or other legal process which is not dismissed, discharged, stayed or restrained within thirty (30) days; (viii) causes or is subject to any event that has an effect analogous to any of the events enumerated in clauses (i) through (vii); or (ix) takes any action in furtherance of, or indicates its consent to, approval of, or acquiescence in any of the foregoing acts or events; then, in such event, this Agreement shall terminate automatically without notice and without any other action by either Party.

**13. Compliance with Laws, Rules and Regulations**– Member shall be responsible for complying with all federal, state and local laws. In the event Member’s facilities, interconnection or disposition of electricity generated by the distributed generation are, or become, subject to Federal, State or local regulation, Member is, and shall be, responsible for regulatory compliance. The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the Rules and the Cooperative’s policies governing interconnection of distributed generation. The Cooperative reserves the right to change the Rules and policies at any time.

**14. Severability** – If any portion or provision of this Agreement is held or adjudged for any reason to be invalid or illegal or unenforceable by any court of competent jurisdiction, such portion shall be deemed separate and independent, and the remainder of this Agreement, shall remain in full force and effect.

**15. Amendment** – This Agreement may be amended only upon mutual agreement of the Parties, which amendment will not be effective until reduced to writing and executed by the Parties.

**16. Entirety of Agreement** – This Agreement, including the requirements contained in the attached Exhibits and Facilities Schedules, which are expressly made a part hereof for all purposes, constitutes the entire agreement and understanding between the Parties with regard to the interconnection of the facilities of the Parties at the Points of Interconnection expressly provided for in this Agreement. The Parties are not bound by or liable for any statement, representation, promise, inducement, understanding, or undertaking of any kind or nature (whether written or oral) with regard to the subject matter hereof not set forth or provided for herein or in Member’s application, or other written information provided by the Member in compliance with these requirements.

**17. Assignment** – This Agreement may be assigned to a party receiving electric service from the Cooperative at the site of the Facilities only upon the express written consent of the Cooperative. The assignee will be responsible for the proper operation and maintenance of the Facilities, and must agree in writing to be subject to all provisions of this Agreement. Cooperative may assign the Agreement to another entity with the written approval of Member. Required consents shall not be withheld unreasonably.

**18. Notices** – Notices given under this Agreement are deemed to have been duly delivered once received by United States certified mail, return receipt requested, postage prepaid, to:

The above-listed names, titles, and addresses of either Party may be changed by written notification to the other.

**19. Invoicing and Payment** – Invoicing and payment terms for services associated with this Agreement shall be consistent with applicable cooperative policies.

**20. No PURPA Interconnection** – The parties agree that the member’s facility is not a qualifying small power production facility or qualifying cogeneration facility as defined in the Public Utility Regulatory Policies Act of 1978 and that nothing herein confers any rights or obligations on either party by application of that Act.

**21. No Third-Party Beneficiaries** – This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties.

**22. Waiver** - The failure of either party to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered to waive the obligations, rights or duties of the provisions in this Agreement.

**23. Governing Law and Jurisdiction** – It is agreed that this Agreement shall be construed and governed in accordance with the laws of the State of Illinois and that the circuit court of Sangamon county has jurisdiction on all matters relating to the enforcement of this Agreement.

24. In the event of a dispute, either party shall provide the other Party with a written Notice of Dispute describing in detail the nature of the dispute. If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may request assistance from a reputable dispute resolution service for assistance in resolving the dispute. The service will select an appropriate dispute resolution venue, (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. Each party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties utilized in the attempt to resolve the dispute. If neither party elects to seek assistance from a dispute resolution service, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this agreement and the rules and policies of the Cooperative.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be signed by their duly authorized representatives.

Rural Electric Convenience Cooperative

MEMBER

BY: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

TITLE: \_\_\_\_\_

\_\_\_\_\_

WITNESS: \_\_\_\_\_

**EXHIBIT A**

**DESCRIPTION OF FACILITY SCHEDULE AND POINT OF INTERCONNECTION**

Facility Schedule No.

Point of Interconnection

*Member will, at Member's own cost and expense, operate, maintain, repair, and inspect, and shall be fully responsible for its Facilities, unless otherwise specified on Exhibit A.*

**FACILITIES SCHEDULE NO.**

- 1. Name:
- 2. Facilities location:
- 3. Delivery voltage:
- 4. Metering (voltage, location, losses adjustment due to metering location, and other:
- 5. Normal Operation of Interconnection:
- 6. One-line diagram attached (check one):/\_\_\_\_\_ Yes /\_\_\_\_\_ No
- 7. Facilities to be furnished by Cooperative:
- 8. Facilities to be furnished by Consumer:
- 9. Cost Responsibility:
- 10. Control area interchange point (check one): /\_\_\_\_\_ Yes /\_\_\_\_\_ No
- 11. Supplemental terms and conditions attached (check one): /\_\_\_\_\_ Yes /\_\_\_\_\_ No
- 12. Cooperative requirements for DG interconnection attached (check one): /\_\_\_\_\_ Yes / \_\_\_\_\_ No

Rural Electric Convenience Cooperative

MEMBER

BY: \_\_\_\_\_

\_\_\_\_\_

TITLE: \_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_