



## **Standard for Interconnecting Distributed Resources 100 kW or less with Electric Power Systems (EPS) (Interconnection Standard)**

### **1. Overview:**

This Standard contains the requirements, in addition to applicable tariffs and service regulations, for parallel interconnection of non-utility owned small generation systems and energy storage technologies which are rated at 20kW or less for residential and 100 kW or less for non-residential (Distributed Resources).

Distributed Resources meeting the criteria and conditions included and/or referenced herein will normally be approved for interconnection except in extenuating site-specific circumstances.

#### **1.1 Scope:**

This Standard applies to Distributed Resources installed at existing radial fed Area EPS (Area Electric Power System) distribution with a determination of minimal impact.

#### **1.2 Purpose:**

This document is developed to provide a simplified standard for interconnecting certain Distributed Resources of 100 kW or less capacity.

#### **1.3 Limitations:**

This Standard does not cover momentary parallel systems used for the exclusive purpose of closed transition of loads. The Standard does not cover small generators connecting to area EPS network systems. The Standard does not cover Members served directly from area EPS transmission facilities.

Although outside the scope of this document, generators failing to meet the requirements of this Standard may still be considered for interconnection after more detailed review specific to the proposed application and generator.

#### **1.4 Conflicts:**

In case of conflict between any provision of a service regulations and of this Standard, the provisions of the service regulations shall prevail.

### **2. References:**

IEEE 929 – (Recommended Practice for Utility Interface of Photovoltaic (PV) Systems, latest published edition)

IEEE 1547 – (Standard for Interconnecting Distributed Resources with Electric Power Systems, June 12, 2003, or latest published edition).

IEEE P1547.1 – (Standard Conformance Test Procedures for Interconnecting Distributed Energy Resources with Electric Power Systems June 9, 2005, or latest approved edition)

IEEE P1547.2 – (Draft: Application Guide for IEEE Standard 1547, Interconnecting Distributed Resources with Electric Power Systems)

IEEE P1547.3 – (Draft: Guide for Monitoring, Information Exchange, and Control of Distributed Resources Interconnected with Electric Power Systems)

UL 1741 – (Inverters, Converts and Controllers for use in Independent Power Systems, latest published edition).

NFPA 70 – (National Electrical Code, latest published edition).

### 3. **Definitions:**

3.1 **Area EPS:** Area Electric Power System: The electric facilities of the local utility.

3.2 **Cooperative:** The electric utility owning and operating the Area EPS.

3.3 **Closed Transition of Loads:** A make-before-break load transfer scheme, in which the Generator is operated in parallel with the Area EPS for a brief period of time, to ensure that the load is maintained while in transition from the Cooperative to the Generator or vice versa. This transition scheme includes fast transfer systems, generally less than one hundred (100) milliseconds, and soft load systems where the parallel condition is maintained for a number of seconds.

3.4 **Member:** The electric Member of record for the location where the generation will be interconnected.

3.5 **Distributed Resource:** A source of power not directly connected to the bulk power transmission system connected to the Cooperative's EPS. This includes both generators and energy storage technologies.

3.6 **Generator:** The distributed "generation system" and equipment to be interconnected to the Area EPS.

3.7 **Isolation Device:** A manual load-break disconnect switch or safety switch with a clear visible indication of switch position between the Area EPS and the Distributed Resource. The switch must have pad lock provisions for locking in the open position. The switch must be visible to, and accessible to Cooperative personnel. The switch must be in close proximity, and visible from, the Member's point of electrical interconnection with the Cooperative's Area EPS. The switch must be labeled "Generator Disconnect Switch". The switch may isolate the Distributed Resource system and its associated load from the area EPS or disconnect only the Distributed Resource from the Area EPS. The Cooperative shall have access to the Isolation Device at all times.

3.8 **Momentary Parallel Systems:** A Generator utilizing only a Closed Transition mode of operation.

3.9 **Point of Common Coupling:** "Point of common coupling" means the point in the interconnection of a Distributed Resource facility with an electric delivery system and

shall have the same meaning as in IEEE Standard 1547.

#### **4. General Requirements:**

- 4.1 **Service Regulations and Tariff/Rate Schedule:** This Standard for Interconnecting Distributed Resources 100 kW or less with Electric Power Systems is governed by the Cooperative's Service Regulations and Tariff/Rate Schedules, as approved from time to time by the Board of Trustees.
- 4.2 **Acceptance for Interconnection:** Each application and Distributed Resource is evaluated individually and accepted or denied for interconnection with the Cooperative's Area EPS. Any Cooperative evaluation is from the perspective of the impact of the interconnection on the Cooperative and its system. The Member is solely responsible for ensuring the safe installation and operation of the Distributed Resource. Distributed Resource shall not be interconnected until the requirements and process described in this Standard have been satisfied. The acceptance for interconnection is for the original applicant only. Subsequent owners or occupants of a site with an interconnected generator must submit a new Application to the Cooperative. The existing Member assumes the responsibility of ensuring a new Member is aware the new Member must re-apply and obtain the Cooperative's written acceptance or the equipment must be removed or disabled to prevent future interconnection and/or operation. The application fee for the re-applying new Member is waived and the technical requirements may be grandfathered for subsequent owners as long as the Distributed Resource's maximum output capacity has not been changed and/or the interconnection protection system has not been modified.
- 4.3 **Waiving Requirements:** All requirements of this Standard must be met although the Cooperative may, in its sole discretion, waive all or some of the requirements of this Standard. Waivers must be issued in writing.
- 4.4 **Interconnect Cost:** The Member will bear all the cost of interconnection on the Member's side of the point of interconnection as well as necessary changes or upgrades to the Area EPS to meet all technical and protection requirements to address any power quality, reliability or safety issues caused by the Distributed Resource operation or connection to the Area EPS.
- 4.5 **Isolating or Disconnecting the Distributed Resource:** The Cooperative may isolate the Member's premises and/or Distributed Resource from Cooperative's Area EPS when necessary in order to construct, install, repair, replace, remove, investigate, or inspect any of Cooperative's equipment or part of Cooperative's system; or if Cooperative determines that isolation of the Member's premises and/or Distributed Resource from Cooperative's Area EPS is necessary because of emergencies, forced outages, force majeure or compliance with prudent electrical practices. Whenever feasible, the Cooperative shall give the Member reasonable notice of the isolation of the Member's premises and/or Distributed Resource from Cooperative's Area EPS. Notwithstanding any other provision of this Standard, if at any time the Cooperative determines that either the Distributed Resource may endanger the Cooperative's personnel or other persons or property, or the continued operation of the Member's Distributed Resource may endanger the integrity or safety of the Cooperative's electric system, the Cooperative shall have the right to isolate the Member's premises and/or Distributed Resource from the Cooperative's Area EPS.

The Cooperative may disconnect the Area EPS electric service to any Distributed Resource determined to be malfunctioning, or not in compliance with this Standard. The

Member must provide proof of compliance with this Standard before the electrical service will be reconnected.

4.6 **Limitation of Liability:** Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission hereunder, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, special, incidental, consequential, or punitive damages of any kind.

4.7 **Indemnification:** The parties shall at all times indemnify, defend and save the other party harmless from any and all damages, losses, claims, including claims and actions relating to injury or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney's fees, and all other obligations by or to third parties, arising out of or resulting from the other party's action or inaction of its obligations hereunder on behalf of the indemnifying party, except in cases of gross negligence or intentional wrongdoing by the indemnified party.

4.8 **Access to and Operation of the Distributed Resource:** The Member shall limit access to and operation of the Distributed Resource to qualified persons and assumes the responsibility of maintaining control of the operation of the Distributed Resource.

4.9 **Insurance:** The Member shall obtain and retain, for as long as its Distributed Resource is interconnected with the Cooperative's system, liability insurance which protects the Member from claims for bodily injury and/or property damage. For a non-residential Member the minimum coverage shall be comprehensive general liability insurance with coverage at least \$600,000 per occurrence and for a residential Member the minimum coverage shall be at a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence. This insurance shall be primary for all purposes. The Member shall provide certificates evidencing this coverage as required by the Cooperative. The Cooperative reserves the right to refuse to establish or continue the interconnection of the Member's Distributed Resource with the Cooperative's system, if such insurance is not in effect.

4.10 **Generator Alterations:** Changes to the Generator output capacity and/or modification to the protection system required to meet this Standard are prohibited without submitting a new Application and obtaining a new acceptance from Cooperative.

4.11 **Discontinuing Operation:** The Member shall notify the Cooperative prior to permanently discontinuing operation of the Distributed Resource interconnected with the Cooperative.

4.12 **Interconnection Application Fee:** The nonrefundable interconnection application fee covers only the application process for interconnection of Distributed Resource and shall be one of the following:

4.12.1. For residential service Members: \$150.00

4.12.2. For non-residential service Members: \$250.00

## 5. **Generator, Inverter and Protective Equipment Technical Requirements:**

5.1 **General:** The Cooperative may elect to visit the site and verify compliance with any requirement of these Standards.

5.2     **Required Standards:** The Member must certify the following requirements:

5.2.1.     The installation of the Distributed Resource and all equipment in the system must comply with the latest published edition of IEEE 929 and IEEE 1547 as applicable.

5.2.2.     Future IEEE Standards and/or Recommended Practices: P1547.2 and P1547.3 are still proposed draft documents and still in working groups at the time of writing this Standard. Distributed Resource interconnected after these standards are published may be required to comply with these IEEE documents.

5.2.3.     The Member's inverter or interconnection protection system must be tested and listed for compliance with the latest published edition of Underwriters Laboratories, Inc. (UL) 1741.

5.2.4.     The Distributed Resource must pass the anti-islanding test in UL 1741.

5.2.5.     The Member's inverter or interconnection protection system must be tested and listed for compliance with the latest published edition of Underwriters Laboratories UL 1741.

5.2.6.     Any protection settings affecting anti-islanding performance must not be adjusted after passing anti-islanding tests; and the anti-islanding device cannot be disabled or bypassed.

5.3     **Additional PV (Photovoltaic) Systems requirements:** The Member must certify that the Generator meets the following requirements:

5.3.1.     The installation of the Generator and all equipment in the system comply with the latest published edition of IEEE 929.

5.3.2.     The Generator is a non-islanding type as defined in IEEE 929.

5.4     **Electrical Contractors and NEC Code Inspections:** All installed wiring, protection devices, cabinets and connectors, etc. must comply with the latest published edition of the NEC as used by the local jurisdiction and all applicable local codes. An approved electrical inspection by the authority having jurisdiction is required.

5.5     **Isolation Device:** An Isolation device as defined in Section 3.6 is required. The Cooperative in its sole discretion determines if the device is suitable.

6.     **Screens and Requirements for Determination of Minimal Impact:**

6.1     **Area EPS Circuit Level Saturation:** The cumulative total of the maximum rated output of all interconnected Distributed Resource shall not exceed the limits as may be determined by the company.

6.2     **Limitations of Area EPS Facilities:**

6.2.1.     **General:** The Distributed Resource shall meet each of the following requirements to qualify for interconnection and each requirement must be maintained after commissioning.

6.2.2.     **Area EPS Capacity Limitation:** The maximum rated output of the Distributed

Resource or total aggregate of multiple Generators shall not exceed the capacity or ratings of the Area EPS facilities as determined by the Cooperative.

- 6.2.3. Secondary, Service and Service Entrance Limitation: The Distributed Resource capacity shall be less than the capacity of the Area EPS owned secondary, service and service entrance cable connected to the Point of Common Coupling. The Cooperative will make this determination after reviewing the Area EPS installed facilities.
- 6.2.4. Transformer Loading Limitation: The Distributed Resource shall not have the ability to overload the Area EPS transformer or any EPS transformer winding beyond manufacturer or nameplate ratings.
- 6.2.5. Integration with Area EPS Grounding: The grounding scheme of the Distributed Resource shall comply with IEEE 1547.
- 6.2.6. Balance Limitation: The Distributed Resource shall not create a voltage imbalance of more than 3% if the Area EPS transformer, with the secondary connected to the Point of Common Coupling, is a three-phase transformer.
- 6.2.7. Any changes or upgrades to Area EPS to accommodate the Distributed Resource will be pursuant to Section 4.4 above.

## **7. Commissioning, Maintenance and Inspections:**

- 7.1 **General:** The Member or Member's authorized representative shall perform commissioning, and maintenance as outlined in this section for all Distributed Resource equipment. All testing shall be documented and the Cooperative shall be granted the right to audit the documentation. The Cooperative reserves the right to require and witness testing of the Member's Distributed Resource.

The Member's Distributed Resource is subject to inspection by a Cooperative representative at a mutually agreeable time, as the Cooperative deems necessary.

The Cooperative's inspection and/or witnessing the testing of the Member's equipment shall not be construed as the Cooperative warranting or implying that the Member's equipment is safe or reliable. The Cooperative shall not be liable to the Member or others as a result of inspection and witnessing of tests of the Member's Distributed Resource or equipment.

- 7.2 **Commissioning:** The manufacturer's recommended and required commissioning, installation and functional tests shall be completed, with successful results, in accordance with the manufacturer's published recommendations. Commissioning tests in IEEE 1547 shall also be completed with successful results unless these IEEE 1547 tests are duplications of the manufacturer tests. After obtaining the final electrical inspection, the Member shall invite the Cooperative to the commissioning test and perform the test at a mutually agreed date but not later than twenty-five (25) days after the invitation.
- 7.3 **Maintenance and Testing:** Maintenance shall be performed in accordance with the manufacturer's published maintenance procedures. Periodic testing shall be completed with successful results in accordance with the manufacturer's published recommendations for periodic testing at, or before, the recommended testing intervals. If the manufacturer does not publish recommendations for periodic testing, suitable testing

shall be performed that assures proper protection for the Area EPS, at an interval not to exceed two years. All test results shall be documented and available to the Cooperative for review upon request.

- 7.4 **Failure of Test:** If a Distributed Resource fails any test, it shall be disabled and the Isolation Device must be opened until the equipment is repaired.

## 8. **Procedures**

- 8.1 **Interconnection Request:** The Member submits to the Cooperative an "Application to Interconnect Distributed Resource" accompanied with the appropriate Interconnection Application Fee to a designated Cooperative contact or department.
- 8.2 **Queue Position:** The Cooperative considers the Application based on the date a completed Application is received by the Cooperative in reference to priority when evaluating the Area EPS screen limits.
- 8.3 **Impact Screens:** The Cooperative accepts or rejects the Application for interconnection after reviewing the Application and performing the screens outlined in this Standard. If the Application is rejected, the Member may request the Cooperative to reconsider interconnection outside the scope of this Standard. If the application is accepted the process will continue.

It may be necessary to visit the site to gather information on the Area EPS facilities or the Member's Distributed Resource equipment.

The Cooperative will complete the Impact Screen process within thirty (30) days (absent extenuating circumstances) of receipt of a complete "Application to Interconnect Distributed Resource." Extenuating circumstances include, but are not limited to, Force Majeure, adverse weather conditions, and system emergencies.

- 8.4 **Agreement for Interconnection:** After all previous items in the process are complete, the Cooperative will provide an agreement to the Member within ten (10) days of the completion of the Impact Screens as stated in 8.3. Once the Member returns the executed Agreement to the Cooperative, the Cooperative will execute the Agreement and return a copy to the Member. Member shall not interconnect the Distributed Resource to Cooperative's Area EPS Facilities unless an Agreement between Member and Cooperative has been executed by both parties.
- 8.5 **Installation and Inspections:** The Member installs the Distributed Resource and the Member is responsible for obtaining an approved electrical inspection from the local authority having jurisdiction for the Distributed Resource installation. The Member shall request the inspector to forward a copy of the approved inspection to the Cooperative contact processing the Distributed Resource interconnect request.
- 8.6 **Area EPS Facilities:** At the Member's expense the Cooperative installs or alters the Area EPS facilities as necessary to accommodate the interconnection.
- 8.7 **Commissioning Test:** The Member performs the required commissioning test and forwards a confirmation letter to the Cooperative unless the Cooperative witnesses the test and it is successful. The Member shall invite the Cooperative to the commissioning test and perform the test at a mutually agreed date and time if the Cooperative elects to

attend.

- 8.8 **Completion of Application/Expiration Process:** The application shall be valid for no less than one year once the Impact Screen process is completed.



## APPLICATION TO INTERCONNECT DISTRIBUTED RESOURCE 100 kW or less

Member hereby gives notice of intent to operate an interconnected residential distributed energy resource facility pursuant to the "Standard for Interconnecting Distributed Generation 100 kW or less with Electric Power Systems (Interconnection Standard)". Application will not be processed until Member has personally discussed interconnection details with a Blue Ridge Electric Cooperative, Inc. representative, hereinafter called "Cooperative." Only after Member has verified comprehension of interconnection requirements, the net metering system and applicable billing policies, will the application be accepted for review. Application must be accompanied by the application fee, proof of liability insurance specific to the interconnected location, and a 1-line electrical drawing of proposed installation. Failure to meet these requirements prohibits Application acceptance. Cooperative will notify governmental authorities responsible for permits only after Application has been processed. Permission to interconnect is not granted until an Interconnection Agreement has been completed between the Cooperative and the Member. Member must provide written release from County Inspector prior to final approval and new meter installation.

### Section 1. Contact Information

**Member** (Name): \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

US Mail Address: \_\_\_\_\_ Daytime Phone Number: \_\_\_\_\_

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**Installer** (General Contractor): \_\_\_\_\_ Phone Number: \_\_\_\_\_

US Mail Address: \_\_\_\_\_

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

Subcontractor: \_\_\_\_\_ Electrical /Contractor License No.: \_\_\_\_\_

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**Electrical Inspector** (Name): \_\_\_\_\_ Phone: \_\_\_\_\_

### Section 2. Distributed Resource/Generator and Facility Information

Facility Location (if different from above): \_\_\_\_\_

Member's Account Number: \_\_\_\_\_

Member Type: Residential ☐ Non-Residential ☐

Is there an existing interconnected generator at this facility? Yes ☐, No ☐

Total proposed aggregate generation output rating at this site (kW): \_\_\_\_\_

Generator / Inverter	# 1	# 2	# 3
Energy Source / Type			
Manufacturer Name			
Model Name & # (Specific)			



<b>Nameplate Rating</b> (kW AC)			
<b>Nominal Voltage</b> (Volts AC)			

If a Member owned transformer will be used, specify Mfg, type and ratings:

\_\_\_\_\_  
(Attach Transformer Manufacturer Specifications)

### Section 3. Installation Information

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

### Section 4. Certification

The interconnection protection system is tested and listed for compliance with the latest published edition of Underwriters Laboratories (UL) 1741 including the anti-islanding test. The system (is / will) be installed in compliance with IEEE 929 and or IEEE 1547 as applicable, all manufacturer specifications, the National Electric Code and all local codes. No protection settings affecting anti-islanding have been or will be adjusted or modified.

I hereby certify that, to the best of my knowledge, all of the information provided in this Application is true and correct and the generator will comply with the Interconnection Standard stated above.

**Signature of Member:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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(Cooperative's Use only):

Note: Only signifies receipt of this form.

This application received by Blue Ridge Electric Cooperative, Inc.

**Signed (Utility Representative):** \_\_\_\_\_

**Date:** \_\_\_\_\_



## INTERCONNECTION AGREEMENT FOR DISTRIBUTED GENERATION 100 kW OR LESS

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This INTERCONNECTION AGREEMENT FOR DISTRIBUTED RESOURCE 100 kW or less, (the "Agreement"), is entered into as of \_\_\_\_\_, 20\_\_\_\_, (the "Effective Date"), by and between \_\_\_\_\_, hereinafter called "Member", and BLUE RIDGE ELECTRIC COOPERATIVE, INC., hereinafter called "Cooperative". Member and Cooperative are hereinafter collectively referred to as the "Parties" or "Party". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

### 1. SCOPE OF AGREEMENT:

- (a) This Agreement relates solely to the conditions under which Cooperative and Member agree that Member's Distributed Resource system and equipment, and located at or near \_\_\_\_\_ may be interconnected to and operated in parallel with Cooperative's Electric Power System ("EPS"). This Agreement does not authorize Member to export power or constitute an agreement to purchase or wheel Member's power. Other services that Member may require from Cooperative shall be covered under separate agreements.
- (b) Cooperative will supply the electrical requirements of Member that are not supplied by Member's Distributed Resource. Such electric service shall be supplied to Member under Cooperative's rates schedules, riders, and services regulations applicable to Member's class of service.

### 2. INTERCONNECTION:

- (a) Cooperative hereby authorizes Member to interconnect and commence operation under the terms of this Agreement on or after \_\_\_\_\_, 20 \_\_\_\_ subject to Member having received Cooperative's written acceptance specified in 2. (f) below.
- (b) Member's Distributed Resource must be manufactured, installed and operated in accordance with governmental and industry standards and must conform with Cooperative's "*Standard for Interconnecting Distributed Resource Less Than 100 kW with Cooperative's Electric Power Systems (EPS)*", hereinafter referred to as "Interconnection Standard", a copy being attached hereto and made a part of this Agreement.
- (c) Member's Distributed Resource shall be installed as described in Member's *Application to Interconnect Distributed Resource 100 kW or less*, a copy attached hereto and made a part hereof.
- (d) The nameplate output of the Distributed Resource is \_\_\_\_\_ kW in the form of \_\_\_\_\_ phase, \_\_\_\_\_ wires, alternating current of 60 hertz frequency and at \_\_\_\_\_ volts.
- (e) The point of interconnection between Member and Cooperative will be \_\_\_\_\_
- (f) Member shall not interconnect Member's Distributed Resource with Cooperative's EPS nor commence parallel operation of Member's Distributed Resource until both Parties have accepted this Agreement and the requirements for interconnection stated in the Interconnection Standard have been met. Cooperative shall have the right and opportunity to have representatives present at the initial testing of Member's protective apparatus. Member shall notify Cooperative at least five (5) business days prior to the initial testing. In the event Member has interconnected Member's Distributed Resource without Cooperative's acceptance of this Agreement or the Distributed Resource has not met the requirements of the

Interconnection Standard, Cooperative shall have the right to immediately isolate Member's premises and/or Distributed Resource from Cooperative's EPS until Cooperative's acceptance is granted and the requirements of the Interconnection Standard have been met.

- (g) Member shall not make any changes to the Distributed Resource output capacity and/or modification to the protection system required to meet the Interconnection Standard without first submitting a new Application and obtaining a new acceptance from Cooperative before making the changes to the Generator.
- (h) **Isolation Device:** Member shall install a manual load-break disconnect switch with a clear visible indication of switch position between Cooperative's EPS and Member's Distributed Resource. The Isolation Device shall be installed as specified in the Interconnection Standard.
- (i) **Warning Label:** Member will install a permanent warning label in a conspicuous place in close proximity to the electric meter or on the meter base to notify Cooperative personnel that there is a generator installed on the load side of the meter. The warning label shall not be placed in a location that would interfere with the ability of Cooperative personnel to read the electric meter. Member shall also place a warning label on the Isolation Device. Cooperative will provide the warning labels to Member. The warning labels must be in place before the Distributed Resource can be interconnected with Cooperative's EPS.

**3. INTERCONNECTION COST:** The cost to Member for all Cooperative owned and maintained facilities constructed and/or installed by Cooperative to accommodate the interconnection and safe operation of Member's Distributed Resource in parallel with Cooperative's EPS shall be determined in accordance with Cooperative's applicable Service Regulations and/or Terms and Conditions. The cost to Member, termination provisions, and other applicable terms and conditions related to facilities installed by Cooperative are as stated in Exhibit \_\_\_, hereto attached and made a part hereof.

**4. RIGHT OF ACCESS AND EQUIPMENT INSTALLATION:**

- (a) **Access To Premises:** The duly authorized agents of Cooperative shall have the right of ingress and egress to the premises of Member at all reasonable hours, over the same general route as Member utilizes, for the purpose of reading meters, inspecting Cooperative's wiring and apparatus, changing, exchanging, or repairing its property on the premises of Member and to remove such property at the time of or at any time after the suspension of interconnection of the Distributed Resource or termination of this Agreement. Cooperative shall have access to Member's Isolation Device at all times.
- (b) Cooperative's obligation to provide the interconnection as covered in this Agreement on the agreed upon Effective Date is contingent upon Cooperative receiving the rights-of-way and receiving the necessary equipment in sufficient time to install it on or before that date. The member unconditionally consents and agrees to, as a condition of interconnection, the installation and use of advanced metering infrastructure meters for measurement of consumption and generation, the model of which shall be determined in the Cooperative's sole and absolute discretion.

**5. MAINTENANCE OF INTERCONNECTION FACILITIES:** Member shall maintain Member's Distributed Resource and all related Member-owned protective equipment and facilities in a safe and prudent manner, conforming to all applicable laws and regulations. Member shall reimburse Cooperative for any and all losses, damages, claims, penalties or liability Cooperative incurs as a result of Member's failure to maintain the Distributed Resource, equipment, and facilities in a safe and prudent manner or failure to obtain and/or maintain any governmental authorizations or permits required for construction and operation of Member's facility.

**6. DISCONNECTION OF DISTRIBUTED RESOURCE:** Cooperative may isolate Member's premises and/or Distributed Resource from Cooperative's system when necessary in order to construct, install, repair, replace, remove, investigate, or inspect any of Cooperative's equipment or part of Cooperative's EPS; or if Cooperative determines that isolation of Member's premises and/or Distributed Resource from Cooperative's EPS is necessary because of emergencies, forced outages, Force Majeure or compliance with prudent electrical practices. Whenever feasible, Cooperative shall give Member reasonable notice of the possible isolation of

Member's premises and/or Distributed Resource from Cooperative's EPS. Notwithstanding any other provision of this Agreement, if at any time Cooperative determines that either the Distributed Resource may endanger Cooperative's personnel or other persons or property, or the continued operation of Member's Distributed Resource may endanger the integrity or safety of Cooperative's EPS, Cooperative shall have the right to isolate Member's premises and/or Distributed Resource from Cooperative's EPS. **It is agreed that Cooperative shall have no liability for any loss of sales or other damages, including all punitive and consequential damages for the loss of business opportunity, profits, or other losses, regardless of whether such damages were foreseeable, for the isolation of Member's premises and/or Distributed Resource from Cooperative's system per this Agreement.** Cooperative shall expend reasonable effort to reconnect the Member's premises and/or Distributed Resource with the Cooperative's EPS in a timely manner.

7. **PERMITS AND APPROVALS:** Member shall obtain all environmental and other permits required by governmental authorities prior to construction, installation, and interconnection of the Distributed Resource. Member shall also maintain these applicable permits and compliance with these permits during the term of this Agreement.

8. **INDEMNITY AND LIABILITY:**

- (a) **Limitation of Liability:** Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission hereunder, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, special, incidental, consequential, or punitive damages of any kind.
- (b) **Indemnification:** The parties shall at all times indemnify, defend and save the other party harmless from any and all damages, losses, claims, including claims and actions relating to injury or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney's fees, and all other obligations by or to third parties, arising out of or resulting from the other party's action or inaction of its obligations hereunder on behalf of the indemnifying party, except in cases of gross negligence or intentional wrongdoing by the indemnified party.
- (c) The provisions of Section 8. (c) shall not be construed to relieve any insurer of its obligations to pay any claims in accordance with the provision of any valid insurance policy.
- (d) If Member at any time fails to comply with the insurance provisions of this Agreement, Member shall, at its own cost, defend, save harmless and indemnify Cooperative, its directors, officers, employees, agents, assignees, and successors in interest from and against any and all loss, liability, damage, claim, cost, charge, demand, or expense of any kind or nature (including attorney's fees and other costs of litigation) resulting from the death or injury to any person or damage to any property, including the personnel and property of Cooperative, its contractors, its Members, and/or the public to the extent that Cooperative would have been protected had Member complied with all such insurance provisions. The inclusion of this Section 8. (d) is not intended to create any express or implied right in Member to elect not to provide any such required insurance.
- (e) Member shall be responsible for installing and maintaining devices adequate to protect against damages caused by irregularities or outages on Cooperative's EPS, regardless of the cause or fault, including devices to protect against voltage fluctuations and single phasing.

9. **INSURANCE:**

- (a) Member shall obtain and retain, for as long as its Distributed Resource is interconnected with the Cooperative's EPS, liability insurance which protects Member from claims for bodily injury and/or property damage. For a non-residential Member the minimum coverage shall be comprehensive general liability insurance with coverage at least \$600,000 per occurrence and for a residential Member the minimum coverage shall be at a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence. Prior to interconnection of the Distributed Resource with Cooperative's EPS, Member shall

furnish a properly executed certificate of insurance to Cooperative clearly evidencing the required coverage and any exclusions applicable to such coverage. The certificate shall provide that the insurance coverage shall not be canceled or modified unless and until Cooperative receives at least thirty (30) days prior written notice. Member shall further replace such certificates for policies expiring during the period its Distributed Resource is interconnected with Cooperative's EPS. Cooperative has the right to refuse to establish or continue the interconnection of Member's generation facility to Cooperative's EPS if such insurance is not in effect.

(b) Insurance on the premises where the Member's Distributed Resource is located shall, by endorsement to the policy or policies, provide for thirty (30) days of written notice to Cooperative prior to cancellation, termination, alteration, or material change of such insurance.

**10. FORCE MAJEURE:** For purposes of this Agreement, Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other caused beyond a Party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing.

**11. NON-WARRANTY:** Cooperative's approvals given pursuant to this Agreement or actions taken hereunder shall not be construed as any warranty or representation to Member or any third party regarding the safety, durability, reliability, performance or fitness of Member's generation and service facilities, its control or protective devices or the design, construction, installation or operation thereof.

**12. EFFECTIVE TERM AND TERMINATION RIGHTS:** This Agreement becomes effective when executed by both parties and shall continue in effect until terminated. The Agreement may be terminated in accordance with the following:

- (a) If Member desires to terminate the Agreement, Cooperative will agree to such termination if Cooperative is satisfied that Member no longer can operate Member's Distributed Resource in parallel with Cooperative's EPS at the premises and all bills for services previously rendered to Member, plus any applicable termination charges as specified in Exhibit \_\_\_\_, have been paid. Cooperative may waive the termination charges if Cooperative has secured or expects to secure from a new occupant or operator of the premises an Agreement satisfactory to Cooperative for the interconnection to Cooperative for a term not less than the unexpired portion of Member's Agreement.
- (b) Cooperative, in addition to all other legal remedies, may either terminate the Agreement or suspend interconnection with Member (1) for any default or breach of Agreement by Member, (2) for failure to pay any applicable bills when due and payable, (3) for a condition on Member's side of the point of interconnection actually known by Cooperative to be, or which Cooperative reasonably anticipates may be, dangerous to life or property, (4) if Member either fails to energize the Distributed Resource within twelve (12) months of the Effective Date of this Agreement or permanently abandons the Distributed Resource, or (5) by giving the Member at least sixty (60) days' notice in the event that there is a material change in an applicable rule or statute concerning interconnection and parallel operation of the Distributed Resource, unless the Member's installation is exempted from the change or the Member complies with the change in a timely manner. No such termination or suspension, however, will be made by Cooperative without written notice delivered to Member, personally or by mail, stating what in particular in the Agreement has been violated, except that no notice need to be given in instances set forth in 12.(b)(3) above. Failure to operate the Distributed Resource for any consecutive twelve (12)-month period after the Effective Date shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.

**13. GENERAL:**

- (c) This Agreement and the applicable Schedule, Riders, Interconnection Standard, Service Regulations, and Terms and Conditions hereto attached are subject to changes or substitutions, either in whole or in part, made from time to time by the Board of Trustees of the Cooperative. Unless specified otherwise, any such

changes or substitutions shall become effective immediately and shall nullify all prior provisions in conflict therewith.

- (d) **Headings:** The descriptive headings of the various sections of this Agreement have been inserted for convenience of reference only and are to be afforded no significance in the interpretation or construction of this Agreement.

**14. ENTIRE AGREEMENT:** This Agreement and the documents attached hereto constitute the entire Agreement between the Parties relating to the subject matter hereof, there being no other agreements or understandings, written or oral, other than those contained in this Agreement and the attachments hereto. This Agreement does not modify, change or impact any other agreement between the Parties relating to the supply of electric service, or the sale of, or purchase of, electric power.

**15. AMENDMENTS:** The Parties may amend this Agreement, but such amendment may only be effective and enforceable if it is set forth in a written instrument signed by both Parties.

**16. ASSIGNMENT:** Member shall not assign its rights nor delegate its duties under this Agreement without Cooperative's written consent. Any assignment or delegation Member makes without Cooperative's written consent shall not be valid. Cooperative shall not unreasonably withhold its consent to Member's assignment of this Agreement. An assignee or new Member must submit a new Application to Cooperative and obtain Cooperative's written approval before any assignment shall occur. Member assumes the responsibility of ensuring a new Member or assignee is aware the new Member or assignee must re-apply and obtain Cooperative's written acceptance, or the equipment must be removed or disabled to prevent future interconnection and/or operation.

**17. THIRD PARTIES:** This Agreement is intended solely for the benefit of the parties hereto. Nothing in this Agreement shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party of this Agreement.

**18. GOVERNING LAW:** This Agreement shall be governed under laws of the State of South Carolina.

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

**20. WAIVER:** No delay or omission in the exercise of any right under this Agreement shall impair any such right or shall be taken, construed or considered as a waiver or relinquishment thereof, but any such right may be exercised from time to time and as often as may be deemed expedient. In the event that any agreement or covenant herein shall be breached and thereafter waived, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other breach hereunder.

**21. MEMBER CERTIFICATION:** By signing this Agreement below, Member hereby certifies that, to the best of Member's knowledge, all of the information provided in the *Application to Interconnect Distributed Resource 100 kW or less* is true and correct, the Distributed Resource will comply with the Interconnection Standard, and that Member has received and reviewed this Agreement.

**22. ACCEPTANCE AND SIGNATURES:** Upon the acceptance hereof by Cooperative, evidenced by the signature of its authorized representative appearing below, this document shall be an Agreement for the interconnection of Member's Distributed Resource to Cooperative's EPS.

**Witness as to Member**

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

**Member:**

\_\_\_\_\_  
By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Accepted: Blue Ridge Electric Cooperative, Inc.**

By: \_\_\_\_\_

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

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBITS AND ATTACHMENTS**

1. Application to Interconnect Distributed Resource 100 kW or less
2. Interconnection Standards
3. Service Regulation or Terms and Conditions
4. Exhibit when interconnection costs are involved.
5. Other exhibits when needed.