



# STANDARD GENERATOR INTERCONNECTION PROCEDURES, FORMS, AND AGREEMENTS

## **\*ABRIDGED VERSION\*** **FOR SOLAR GENERATING FACILITIES** **NOT LARGER THAN 20 KW INCLUDING** **RESIDENTIAL ROOFTOP SOLAR**

*\*Abridged version contains select provisions for  $\leq 20\text{ kW}$  only, please refer to Cooperative's non-abridged "Standard Generator Interconnection Procedures, Forms, and Agreements (SGIP)" for complete set of Cooperative's solar interconnection procedures and agreements.*

## **TABLE OF CONTENTS**

	<b>Page No.</b>
<b>Section 1. Application .....</b>	<b>1</b>
1.1 Applicability .....	1
1.2 Interconnection Request .....	2
1.3 Modification of the Interconnection Request.....	2
1.4 Site Control.....	2
1.5 Queue Position.....	2
 <b>Section 2. 20 kW Inverter Process for Interconnecting Certified Generating Facilities No Larger than 20 kW.....</b>	 <b>3</b>
2.1 Applicability .....	3
2.2 Interconnection Request .....	3
2.3 Certificate of Completion .....	3
2.4 Contact Information.....	3
2.5 UL 1741 Listed .....	4
 <b>Section 5. Standard Provisions That Apply to All Interconnection Requests.....</b>	 <b>11</b>
5.1 Reasonable Efforts .....	11
5.2 Disputes .....	11
5.3 Withdrawal of An Interconnection Requesting .....	11
5.4 Interconnection Metering.....	11
5.5 Commissioning .....	12
5.6 Confidentiality .....	12
5.7 Comparability .....	12
5.8 Record Retention .....	12
5.9 Interconnection Agreement.....	12
5.10 Coordination with Affected Systems .....	13
5.11 Capacity of the Generating Facility .....	13
5.12 Sale of a Generating Facility.....	13
5.13 Insurance.....	14
5.14 Certification Codes and Standards.....	15
5.15 Certification of Generator Equipment Packages.....	15
5.16 Isolating or Disconnecting the Generating Facility .....	15
5.17 External Disconnect Switch (EDS).....	15

### **Selected SGIP Attachments:**

Attachment 2 – Interconnection Request Application & Certificate of Completion for Certified  
Inverter Based Generating Facilities No Larger Than 20 kW

Attachment 5 – Certification Codes and Standards

Attachment 6 – Certification of Generator Equipment Packages

## **Section 1. Application**

### **1.1 Applicability**

- 1.1.1 This *Standard Generator Interconnection Procedures, Forms, and Agreements* (“SGIP”) contains the procedures and requirements for interconnection of Distributed Resources and parallel operation of Generation Facilities with the distribution system of **Tri-County Electric Cooperative, Inc.** (the “Cooperative”).
- 1.1.1.1 A request to interconnect a Distributed Resource that has a certified inverter-based Generating Facility no larger than 20 kW shall be evaluated under the Section 2—20 kW Inverter Interconnection Process. (See Attachments 5 and 6 for certification criteria.)
- 1.1.1.2 A request to interconnect a Distributed Resource that has a certified Generating Facility larger than 20 kW and no larger than 100 kW will be evaluated under the Section 3—Accelerated Interconnection Process. (See Attachments 5 and 6 for certification criteria.)
- 1.1.1.3 A request to interconnect a Distributed Resource larger than 100 kW and no larger than 1 MW, or a Generating Facility that does not pass the Accelerated Interconnection Process, shall be evaluated under the Section 4—Study Process. The Study Process shall be subject to the requirements of the applicable Transmission System owner, and may require special metering and other equipment as required by the Transmission System owner on a case by case basis as determined by the Study Process.
- 1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures.
- 1.1.3 References in the SGIP to Interconnection Agreement are to the Cooperative’s Standard Interconnection Agreement (Attachment 9).
- 1.1.4 Neither these procedures nor the requirements included hereunder apply to Generating Facilities interconnected or approved for interconnection prior the effective date of these procedures. However, the SGIP shall apply if the Interconnection Party proposes Material Modifications or transfers ownership of the Generating Facility after that date.

### **1.2 Interconnection Request**

The Interconnection Party shall submit the appropriate Interconnection Request Application (Attachment 2 for Generating Facilities no larger than 20 kW and Attachment 3 for Generating Facilities larger than 20 kW and no larger than 1 MW) to the Cooperative, together with the applicable processing fee and study deposit specified in the corresponding Interconnection Request Application. If the Interconnection Request Application is incomplete, Cooperative will provide along with the notice that the Interconnection Request Application is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request Application. If the Interconnection Party does not provide the necessary information within thirty (30) calendar days following notice from the Cooperative, the Interconnection Request will be

deemed withdrawn. An Interconnection Request Application will be deemed complete upon submission of the listed information to the Cooperative.

1.3 Modification of the Interconnection Request

Any Material Modification to machine data or equipment configuration or to the interconnection site of the Generating Facility not agreed to in writing by the Cooperative and the Interconnection Party may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

1.4 Site Control

Documentation of site control must be submitted with the Interconnection Request using the sample Site Control Verification Form included in Attachment 4. Site control may be demonstrated through:

- 1.5.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility;
- 1.5.2 An option to purchase or acquire a leasehold site for such purpose; or
- 1.5.3 An exclusivity or other business relationship between the Interconnection Party and the entity having the right to sell, lease, or grant the Interconnection Party the right to possess or occupy a site for such purpose.

Should the Interconnection Party's site control lapse at any point in time prior to interconnection and such lapse is brought to the attention of Cooperative, Cooperative shall notify the Interconnection Party in writing of the alleged lapse in site control. The Interconnection Party shall have ten (10) Business Days from the posted date on the notice from the Cooperative to cure and submit documentation of re-established site control, where failure to cure the lapse will result in the Interconnection Request being deemed withdrawn.

1.5 Queue Position

The Cooperative shall assign a Queue Position based upon the order of submission of the completed Interconnection Request. The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. At the Cooperative's option, Interconnection Requests may be studied serially or in clusters for the purpose of the System Impact Study, should one be required. (See Section 4.3 below)

## **Section 2. 20 kW Inverter Process for Interconnecting Certified Inverter-Based Generating Facilities No Larger than 20 kW**

### **2.1 Applicability**

The 20 kW Inverter Process is available to an Interconnection Party proposing to interconnect its inverter-based Generating Facility with the Cooperative's System if the Generating Facility is no larger than 20 kW and if the Interconnection Party's proposed Generating Facility meets the codes, standards, and certification requirements of Attachments 5 and 6 of these procedures, or the Cooperative has reviewed the design or tested the proposed Generating Facility and is satisfied that it is safe to operate. The Cooperative is requiring the Interconnection Party to install a manual load-break disconnect switch or safety switch (External Disconnect Switch) as a clear visible indication of switch position between the Cooperative System and the Interconnection Party. (See also Section 5.17).

### **2.2 Interconnection Request**

The Interconnection Party shall complete the "Interconnection Request Application For A Certified Inverter-Based Generating Facility No Larger Than 20 kW" (Attachment 2) and submit it to the Cooperative, together with the non-refundable processing fee specified in the Interconnection Request Application. The Cooperative shall verify that the Generating Facility can be interconnected safely and reliably as provided in the Accelerated Process (See Section 3.3), and then advise the Interconnection Party.

### **2.3 Certificate of Completion**

2.3.1 After installation of the Generating Facility, the Interconnection Party shall return the Certificate of Completion to the Cooperative (Attachment 2). Prior to parallel operation, the Cooperative may inspect the Generating Facility for compliance with standards, which will typically include a witness test, and may schedule appropriate metering replacement, in its sole discretion.

2.3.2 The Cooperative shall notify the Interconnection Party in writing that interconnection of the Generating Facility is authorized. If the witness test is not satisfactory, the Cooperative has the right to disconnect the Generating Facility. The Interconnection Party has no right to operate in parallel with the Cooperative until a witness test has been performed, or previously waived on the Interconnection Request.

2.3.3 Interconnection and parallel operation of the Generating Facility is subject to the Standard Provisions set forth in Section 5 below.

### **2.4 Contact Information**

The Interconnection Party must provide the legal name(s) and contact information for the legal applicant (i.e., the Interconnection Party). If another entity is responsible for interfacing with the Cooperative, that contact information must also be provided on the Interconnection Request.

2.5 UL 1741 Listed

The Underwriters' Laboratories (UL) 1741 standard (Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources) addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a nationally recognized testing laboratory that verifies compliance with UL 1741. This "listing" is then marked on the equipment and supporting documentation.

## **Section 5. Standard Provisions That Apply to All Interconnection Requests**

### **5.1 Reasonable Efforts**

The Cooperative shall make reasonable efforts to accomplish the steps described in these procedures as soon as practicable, unless the Cooperative and the Interconnection Party agree to a different schedule, bearing in mind that such steps will be delayed, in the Cooperative's sole and absolute discretion, when necessary or appropriate to ensure uninterrupted performance of the Cooperative's operational requirements.

### **5.2 Disputes**

5.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this section.

5.2.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

5.2.3 Each Party agrees to conduct all negotiations in good faith.

5.2.4 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.

### **5.3 Withdrawal of An Interconnection Request**

5.3.1 An Interconnection Party may withdraw an Interconnection Request at any time prior to executing an Interconnection Agreement by providing the Cooperative with a written request for withdrawal.

5.3.2 An Interconnection Request shall be deemed withdrawn if the Interconnection Party fails to meet its obligations specified in the Interconnection Procedures, System Impact Study Agreement or Facility Study Agreement or to take advantage of any express opportunity to cure.

5.3.3 Within sixty (60) Business Days of any voluntary or deemed withdrawal of the Interconnection Request, the Cooperative will provide the Interconnection Party with a final accounting report of any difference between (1) the Interconnection Party's cost responsibility for the actual cost of such work performed, and (2) the Interconnection Party's Interconnection Request deposit submitted to the Cooperative to pay for such work. If the Interconnection Party's cost responsibility exceeds its previous aggregate payments, the Utility shall invoice the Interconnection Party for the amount due and the Interconnection Party shall make payment to the Cooperative within twenty (20) Business Days. If the Interconnection Party's previous aggregate payments exceed its cost responsibility under this Agreement, the Cooperative shall refund to the Interconnection Party an amount equal to the difference within twenty (20) Business Days of the final accounting report.

### **5.4 Interconnection Metering**

Any metering necessitated by the use of the Generating Facility shall be installed at the Interconnection Party's expense in accordance with the Cooperative's specifications.

5.5 Commissioning

Commissioning tests of the Interconnection Party's installed equipment shall be performed pursuant to applicable codes and standards. The Cooperative must be given at least ten (10) Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

5.6 Confidentiality

5.6.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Party shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

5.6.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

5.6.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

5.6.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

5.7 Comparability

The Cooperative shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this document. The Cooperative shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Parties.

5.8 Record Retention

The Cooperative shall maintain for two (2) years, records of all Interconnection Requests received under these procedures.

5.9 Interconnection Agreement

5.9.1 The Cooperative shall provide an executable Interconnection Agreement (Attachment 9) containing the detailed estimated Upgrade charges, detailed estimated Interconnection



Facility charge, Attachment 9-Appendix 4 (Construction Milestone and payment schedule listing tasks, dates and the party responsible for completing each task), and other appropriate information, requirements, and charges.

- 5.9.2 After receiving an Interconnection Agreement from the Cooperative, the Interconnection Party shall have thirty (30) Business Days or another mutually agreeable timeframe to sign and return the Interconnection Agreement. If the Interconnection Party does not sign the Interconnection Agreement within such time, the Interconnection Request shall be deemed withdrawn.
- 5.9.3 After the Parties execute the Interconnection Agreement, the Cooperative shall return a copy of the Interconnection Agreement to the Interconnection Party and interconnection of the Generating Facility shall proceed under the provisions of the Interconnection Agreement.
- 5.9.4 The Interconnection Agreement shall specify milestones for payment and financial security that are required prior to the start of design, equipment procurement and construction of Upgrades and Interconnection Facilities. Payment and Financial Security must be received by close of business thirty (30) Business Days after the date the Interconnection Agreement is signed by the Interconnection Party, where failure to comply results in the Interconnection Request being deemed withdrawn.

#### 5.10 Coordination with Affected Systems

The Cooperative will typically coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable studies within a reasonable timeframe. The Cooperative will endeavor to include such Affected System operators in all meetings held with the Interconnection Party. The Interconnection Party will cooperate with the Cooperative in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

#### 5.11 Capacity of the Generating Facility

- 5.11.1 If the Interconnection Request is for an increase in capacity for an existing Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Generating Facility.
- 5.11.2 If the Interconnection Request is for a Generating Facility that includes multiple energy production devices at a site for which the Interconnection Party seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.
- 5.11.3 The Interconnection Request shall be evaluated using the maximum rated capacity AC of the Generating Facility, unless otherwise agreed to by the Cooperative and Interconnection Party.

#### 5.12 Sale of a Generating Facility

- 5.12.1 The Interconnection Party shall notify the Cooperative of the pending sale of a proposed Generating Facility in writing. The Interconnection Party shall provide the Cooperative

with information regarding whether the sale is a change of ownership of the Generating Facility to a new legal entity, or a change of control of the existing legal entity. The interconnection Member shall promptly notify the Cooperative of the final date of sale and transfer date of ownership in writing. The purchaser of the Generating Facility shall confirm to the Cooperative the final date of sale and transfer date of ownership in writing, and submit an Interconnection Request Application (Attachment 2) requesting transfer of control or change of ownership together with the change of ownership fee of Fifty Dollars (\$50.00) as set forth on the Interconnection Request Application (Attachments 2).

- 5.12.2 Existing Interconnection Agreements are non-transferable. If the Generating Facility is sold to a new legal entity, a new Interconnection Agreement must be executed by the new legal entity prior to the interconnection or for the continued interconnection of the Generating Facility to the Cooperative's System. The Cooperative shall not withhold or delay the execution of an Interconnection Agreement with the new owner provided the Generating Facility or proposed Generating Facility complies with requirements of Section 5.12.1.
- 5.12.3 The technical requirements in the Interconnection Agreement shall be grandfathered for subsequent owners as long as (1) the Generating Facility's maximum rated capacity has not been changed; (2) the Generating Facility has not been modified so as to change its electrical characteristics; and (3) the Interconnection Facilities has not been modified.

#### 5.13 Insurance

The Interconnection Party shall obtain and retain, for as long as the Generating Facility is interconnected with the Cooperative's System, liability insurance which protects the Interconnection Party from claims for bodily injury and/or property damage. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. This insurance shall be primary for all purposes. The Interconnection Party shall provide certificates evidencing this coverage as required by the Cooperative. Such insurance shall be obtained from an insurance provider authorized to do business in South Carolina. The Cooperative reserves the right to refuse to establish or continue the interconnection of the Generating Facility with the Cooperative's System, if such insurance is not in effect.

- 5.13.1 For an Interconnection Party that is a residential member of the Cooperative proposing to interconnect a Generating Facility no larger than 20 kW, the required coverage shall be a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence.
- 5.13.2 For an Interconnection Party that is a non-residential member of the Cooperative proposing to interconnect a Generating Facility no larger than 100 kW, the required coverage shall be comprehensive general liability insurance with coverage in the amount of at least \$300,000 per occurrence.
- 5.13.3 For an Interconnection Party that is a non-residential member of the Cooperative proposing to interconnect a Generating Facility larger than 100 kW but less than 1 MW, the required coverage shall be comprehensive general liability insurance with coverage in the amount of at least \$1,000,000 per occurrence.

5.14 Certification Codes and Standards

Attachment 5 specifies codes and standards that the Generating Facility must comply with.

5.15 Certification of Generator Equipment Packages

The certification requirements for the Generating Facility are specified in Attachment 6.

5.16 Isolating or Disconnecting the Generating Facility

The Cooperative may isolate the Interconnection Party's premises and/or Generating Facility from the Cooperative's System when necessary in order to construct, install, repair, replace, remove, investigate or inspect any of the Cooperative's equipment or part of Cooperative's System; or if the Cooperative determines that isolation of the Interconnection Party's premises and/or Generating Facility from the Cooperative's System is necessary because of emergencies, forced outages, force majeure or compliance with prudent electrical practices. Whenever feasible, the Cooperative shall give the Interconnection Party reasonable notice of the isolation of the Interconnection Party's premises and/or Generating Facility from the Cooperative's System. Notwithstanding any other provision of this Agreement, if at any time the Cooperative determines that the continued operation of the Generating Facility may endanger either (1) the Cooperative's personnel or other persons or property or (2) the integrity or safety of the Cooperative's System, or otherwise cause unacceptable power quality problems for other electric consumers, the Cooperative shall have the right to isolate the Interconnection Party's premises and/or Generating Facility from the Cooperative's System. 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.

5.17 External Disconnect Switch ("EDS")

In order to comply with the Final Rule of the Rural Utilities Service regarding the Interconnection of Distributed Resources ("IDR") as codified at 7 C.F.R. Part 1730, Subpart C, the Cooperative requires that the Interconnection Facilities shall include a lockable disconnect and visible open EDS that is readily accessible to and operable by authorized Cooperative personnel at all times. The EDS is a manual load break disconnect switch or safety switch with a clear visible indication of switch position between the Cooperative System and the Interconnection Party. 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 to, and on the Interconnection Party's side of the point of electrical interconnection with, the Cooperative's System. The switch must be labeled "Generator Disconnect Switch." The switch may isolate the Interconnection Party and its associated load from the Cooperative's System or disconnect only the Generator from the Cooperative's System and shall be accessible to the Cooperative at all times. The Cooperative, in its sole discretion, determines if the switch is suitable and necessary.



**INTERCONNECTION REQUEST APPLICATION**  
**FOR A CERTIFIED INVERTER-BASED GENERATING FACILITY**  
**NO LARGER THAN 20 kW**

**Preamble and Instructions:**

An Interconnection Party must submit this Interconnection Request Application by hand delivery, mail, e-mail, or fax to the Cooperative. This Interconnection Request Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Interconnection Request may be required.

**Processing Fee:**

A non-refundable processing fee of One Hundred Fifty Dollars (\$150.00) must accompany this Interconnection Request Application.

**Change in Ownership – Non-Refundable Processing Fee:**

If the Interconnection Request is submitted solely due to a transfer of ownership or change of control of the Generating Facility, the processing fee is Fifty Dollars (\$50.00).

**Interconnection Party:**

Legal Name of the Interconnection Party (or, if an individual, individual's name)

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

Account Number: \_\_\_\_\_

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

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

E-Mail Address: \_\_\_\_\_

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

Telephone: \_\_\_\_\_

**Generating Facility Information:**

Facility Location (if different from above):

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

County: \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)

System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)

Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

Prime Mover: Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell ☐Turbine ☐ Other \_\_\_\_\_Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐Fuel Oil ☐ Other (describe) \_\_\_\_\_

Is the equipment UL 1741 Listed? Yes \_\_\_\_\_ No \_\_\_\_\_

If Yes, attach manufacturer's cut-sheet showing UL 1741 listing

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

The 20 kW Inverter Process is available only for inverter-based Generating Facilities no larger than 20 kW that meet the codes, standards, and certification requirements of Attachments 5 and 6 of the Cooperative's Standard Generator Interconnection Procedures, Forms, and Agreements ("SGIP"), or the Cooperative has reviewed the design or tested the proposed Generating Facility and is satisfied that it is safe to operate.

List components of the Generating Facility equipment package that are currently certified:

Number	Equipment Type	Certifying Entity
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

**Interconnection Party Signature**

I hereby certify that, to the best of my knowledge, the information provided in this Interconnection Request Application is true. I agree to abide by the Cooperative's terms and conditions for Interconnecting a Certified Inverter-Based Generating Facility No Larger than 20 kW and return the Certificate of Completion when the Generating Facility has been installed.

Signed: \_\_\_\_\_

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

**Contingent Approval to Interconnect the Generating Facility (For Cooperative use only)**

Interconnection of the Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting a Certified Inverter-Based Generating Facility No Larger than 20 kW and return of the Certificate of Completion.

Cooperative Signature: \_\_\_\_\_

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

Interconnection Request ID number: \_\_\_\_\_

Cooperative waives inspection/witness test? Yes \_\_\_\_ No \_\_\_\_

**Certificate of Completion for Interconnecting a Certified Inverter-Based  
Generating Facility No Larger than 20 kW**

Is the Generating Facility owner-installed?      Yes \_\_\_\_\_      No \_\_\_\_\_

**Interconnection Party:**

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

Account Number: \_\_\_\_\_

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

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

E-Mail & Telephone: \_\_\_\_\_

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

Location of Generating Facility (if different from above):

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

County: \_\_\_\_\_

**Electrician:**

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

Company: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

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

Telephone (Day): \_\_\_\_\_      Fax: \_\_\_\_\_

License Number: \_\_\_\_\_

Date Approval to Install Generating Facility granted by Cooperative: \_\_\_\_\_

Interconnection Request ID Number: \_\_\_\_\_

**Inspection:**

The Generating Facility has been installed and inspected in compliance with the local building & electrical code of \_\_\_\_\_ [County/City/Town].

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_      Date: \_\_\_\_\_

As a condition of interconnection, you are required to send/email/fax a copy of this form along with a copy of the signed electrical permit to:

**Tri-County Electric Cooperative, Inc.**

Attention: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

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

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**Approval to Energize the Generating Facility (For Cooperative use only)**

Energizing the Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting a Certified Inverter-Based Generating Facility No Larger than 20 kW.

Cooperative Signature: \_\_\_\_\_

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



**Attachment 5**

**Certification Codes and Standards**

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (“SWC”) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

NEMA MG 1-1998, Motors and Small Resources, Revision 3 NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

NFPA 70 (2002), National Electrical Code

UL 1741, Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources

These references include and incorporate by reference any updates or additions to the listed standards and these standards (or “families” of standards) shall apply to any future applications.

**Attachment 6**

**Certification of Generator Equipment Packages**

- 1.0 Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (“NRTL”) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer’s literature accompanying the equipment.
- 2.0 The Interconnection Party must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Party must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the member side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the Cooperative.

**TRI-COUNTY ELECTRIC COOPERATIVE, INC.**  
**St. Matthews, South Carolina**

**SURPLUS GENERATION RIDER**  
**RATE SCHEDULE SG-R**

**AVAILABILITY**

Available in all territory served by the Cooperative, in conjunction with the Cooperative's [Residential Rate 1, and the small Commercial Rate 14 and Rate 2], subject to the Cooperative's Service Rules and Regulations. Furthermore, this Rider is available on a first come, first serve basis, except that the total capacity of all consumer-owned generating systems, served under this Rider, shall not exceed [1%] of the Cooperative's maximum hourly non-coincidental aggregate peak load, as measured at its distribution substations, for the last calendar year.

**APPLICABILITY**

A. System Type

This rider is applicable to Consumers where solar photovoltaic, wind-powered, biomass-fueled, or micro-hydro, or other Cooperative-approved renewable generation sources of electric energy ("Eligible Generation Source") are installed on the Consumer's side of the delivery point, for the Consumer's own use, but interconnected with and operated in parallel with the Cooperative's distribution system.

This rider is applicable only for installed single-phase and multi-phase generation systems where the rated capacity of the Consumer's generating system shall not exceed the lesser of (a) the Consumer's estimated maximum annual non-coincidental kilowatt demand or (b) 20 kilowatts for a residential system or 100 kilowatts for a nonresidential system, and where such system fully complies with the Cooperative's then current "Standard for Interconnecting Small Generation 100 kW or Less with Electric Power Systems" ("Interconnection Standard"). In addition, Consumer's generating system must be manufactured, installed, and operated in accordance with applicable Government and Industry standards.

B. Nameplate Rating

To qualify for service under this Rider, the Nameplate Rating of the Consumer's installed generation system and equipment must not exceed the Consumer's actual or estimated maximum annual non-coincidental demand (kW) for the last twelve (12) months or 20 kW for a residential consumer or 100 kW for a non-residential consumer, whichever is less.

**CHARGES**

A. Rate

The charge per month shall be determined from the appropriate rate schedule, as referenced above under AVAILABILITY. The monthly bill shall be determined as follows:

1. The facilities charge shall be determined and billed as set forth in the applicable rate schedule, as described in the AVAILABILITY section above.
2. For each billing period, the member's monthly energy consumption and generation will be metered. The cumulative kWh Delivered to the member will be metered separately from the kWh Received to the grid from the member. All Delivered kWh will be charged according to the applicable rate schedule and Received energy for that billing period will be credited by an amount per kilowatt-hour at the Cooperative's Value of Renewable Generation as determined in accordance with Exhibit A ("Excess Energy Credit").
3. Excess Energy Credits that exceed the Charges for any billing period will be retained to offset Charges in future billing periods. Upon termination of this Rider or the member's disconnection of its generating system from the Cooperative's electrical power system (except for the Cooperative's termination of the member's interconnection for cause), the Cooperative shall issue a check to the member in the amount of any such retained Excess Energy Credit.
4. If solar credit is larger than the energy bill, the remaining credit rolls over to the next month as long as the account remains active.
5. As of the Effective Date of this Rider, the Cooperative's Value of Renewable Generation is \$0.065/kWh.

## **GENERAL CONDITIONS**

### **A. Limitations on Net Billing Load**

If the Consumer's proposed installation results in the total net billing generation exceeding the limitation provided under "AVAILABILITY", above, the Consumer will be notified that service under this Rider is not allowed.

### **B. Execution of Interconnection Agreement**

The Consumer must execute an Interconnection Agreement prior to receiving service under this Rider. The agreement shall include a description of the conditions related to interconnection of the Consumer generation with the Cooperative's electrical system.

### **D. Applicable Rate Schedule**

All provisions of the applicable rate schedule including, but not limited to, Facilities Charge, Determination of Billing Demand, Determination of On-Peak and Off-Peak Hours, Definition of Month, Contract Demand, Wholesale Power Cost Adjustment, etc. will apply to service supplied under this Rider.

### **E. Ownership of Premises**

If the Consumer is not the owner of the premises receiving electric service from the Cooperative, the Cooperative shall have the right to require that the owner of the premises give satisfactory written approval of the Consumer's request for service under this Rider.

F. Interconnection

1. COMPLIANCE – When interconnecting Small Generation, the Consumer shall comply with the requirements of the Cooperative's Interconnection Standard.
2. APPLICATION – The Consumer shall submit an Application to Interconnect Small Generation, which must be accepted by the Cooperative, and pay an application fee in accordance with the Interconnection Standard.
3. INSURANCE – The Consumer shall comply with the liability insurance requirements of the Cooperative's Interconnection Standard.

G. System Upgrades

The Cooperative will furnish, install, own and maintain metering to measure the kilowatt demand and kilowatt-hours delivered by the Cooperative to the Consumer. The Cooperative shall have the right to install special metering and load research devices on the Consumer's equipment and the right to use the Consumer's telephone line for communication with the Cooperative's and the Consumer's equipment.

The Consumer shall pay for any costs associated with upgrades to the Cooperative's distribution system required for the Cooperative to maintain a safe and reliable distribution system, necessitated by providing service to Consumer, hereunder.

**CONTRACT PERIOD**

Acceptance of service under this Rider binds the Consumer to all terms and conditions of this Rider. Such obligations shall begin on the date of such acceptance of service and shall continue for an initial term of one (1) year and thereafter for additional terms of one (1) year each, unless and until terminated at the end of such initial term or any additional term by not less than sixty (60) day's advance written notice of termination from the Consumer to the Cooperative. A separate contract shall be executed for each of Consumer's meters/service locations where service will be taken hereunder.

The Cooperative reserves the sole right to terminate service to a Consumer under this Rider at any time upon written notice in the event that the Consumer violates any of the terms or conditions of the Rider, or if the Consumer operates the generation system and equipment in a manner which is detrimental to the Cooperative or any of Cooperative's other consumers. Additionally, the Cooperative reserves the right to modify or terminate this Rider in whole or in part at any time in accordance with its bylaws, policies and procedures.

**RIDER FOR INTERCONNECTED SMALL MEMBER-OWNED RENEWABLE GENERATION  
(UP TO 20 KW RESIDENTIAL/100 KW NONRESIDENTIAL)**

**EXHIBIT A**

**TRI-COUNTY ELECTRIC COOPERATIVE VALUE OF RENEWABLE GENERATION**

On or before May 1<sup>st</sup> of each calendar year, the Cooperative will provide a written statement to members subject to this Rider setting forth the Value of Renewable Generation for the next calendar year.

The Cooperative's determination of the Value of Renewable Generation shall be developed in accordance with good utility practice based on Cooperatives wholesale power costs with adjustment to account for use at the retail level. The Value of Renewable Generation shall be updated annually and approved by the Cooperative Board.

To explain a little more how the billing process works:

Bills are figured like this:

\$1.65 per day (\$50.00 for a 30 day bill) account charge

Each Kwh received X \$0.1525

Each Kwh received X \$0.00 (Current 4-2-25 margin adjustment factor)

(If calculated forward bill is less than \$50.00 then the minimum bill will be \$50.00)

For excess generation bills:

They are figured the same as above except.

The excess kwh's that are returned to the system and receiving credit is limited to the amount of kwh's received from Tri-County. These kwh's returned are multiplied by the \$0.065 (Tri-County's Value of Solar) and credited to your bill. Any kwh's returned to the system beyond what is received from Tri-County is placed in a pool to be used to offset future kwh's received from Tri-County on future bills.

Example:

Received from Tri-County- 500 kwh's

Excess put back on Tri-County's system- 800 kwh's

Bill(30 day):

\$50.00 (account charge)

500 X \$0.1525 (kwh charge) = \$76.25

500 X \$0.00 (current margin adjustment factor) = \$0.00

Bill before credit- \$126.25

Credit is figured:

500 kwh X \$0.065= \$32.50

Final Bill- \$93.75

The excess 300 kwh will go into the pool to be used to offset energy usage in future months.

I hope this better explains the surplus generation rider.

All rates above are based on the current rate structure. The margin adjustment factor can fluctuate quarterly, the amount used was the margin adjustment factor at the time of putting this document together.