



A Touchstone Energy® Cooperative 

## **Interconnection Procedures, Forms and Agreements for Distributed Generation**

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## **Attachments**

Attachment 1 – Glossary of Terms

Attachment 2 – Interconnection Request Application Form

Attachment 3 – Pre-Application Report Form

Attachment 4 – Certification Codes and Standards

Attachment 5 – Certification of Generator Equipment Packages

Attachment 6 – Interconnection Request, Certificate of Completion, and Terms and Conditions for Certified Inverter-Based Generating Facilities No Larger than 20 kw

Attachment 7 – System Impact Study Agreement

Attachment 8 – Facilities Study Agreement

Attachment 9 – Interconnection Agreement

# 1 General Requirements

## 1.1 Applicability

- 1.1.1. This Standard contains the requirements for the interconnection and parallel operation of Generating Facilities with the distribution system of South River Electric Membership Corporation (“Cooperative”).

Interconnection Requests for new Generating Facilities will be submitted to the Cooperative for approval at the final design stage and prior to the beginning of construction.

To avoid the potential for unforeseen issues, the Interconnection Customer should submit a written request for a Section 1.2 Pre-Request Response and/or Section 1.3 Pre-Application Report.

Revised Interconnection Requests for equipment or design changes should be submitted pursuant to Section 1.5.

Interconnection Customers must notify the Cooperative of a change of ownership or change in control pursuant to Section 6.11.

- 1.1.1.1. A request to interconnect a certified inverter-based Generating Facility no larger than 20 kw will be evaluated under the Section 2, 20 kw Inverter Process. (See Attachments 4 and 5 for certification criteria.)
  - 1.1.1.2. A request to interconnect a certified Generating Facility no larger than the capacity specified in Section 3.1 will be evaluated under the Section 3 Fast Track Process. (See Attachments 4 and 5 for certification criteria.)
  - 1.1.1.3. A request to interconnect a Generating Facility larger than the capacity stated in Section 3.1, or a Generating Facility that does not qualify for or pass the Fast Track Process or qualify for the 20 kw Inverter Process, will be evaluated under the Section 4 Study Process. Interconnection Customers that qualify for Section 2 or Section 3 may also choose to proceed directly to Section 4 if they believe Section 4 review is likely to be necessary.
- 1.1.2. Capitalized terms used herein will have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures.
  - 1.1.3. This interconnection standard will not apply to Generating Facilities

already interconnected as of the effective date of this Standard, unless the Interconnection Customer proposes a Material Modification, transfers ownership of the Generating Facility, or application of the current Standard is agreed to in writing by the Cooperative and the Interconnection Customer.

An Interconnection Customer that has not executed an interconnection agreement with the Cooperative prior to the effective date of this Standard will have 30 Calendar Days following the later of the effective date of the Standard or the posted date of notice in writing from the Cooperative to demonstrate site control pursuant to Section 1.6, and to post the deposit outlined in Section 1.4.

An Interconnection Customer that has executed an interconnection agreement with the Cooperative prior to the effective date of this Standard, but has not actually been interconnected, will have 60 Calendar Days to submit Upgrade and Interconnection Facility payments (or Financial Security acceptable to the Cooperative for Interconnection Facilities only) required pursuant to Section 5.2. Any amounts previously paid by the Interconnection Customer at the time deposit or payment is due under this Section will be credited towards the deposit amount or other payment required under this Section.

- 1.1.4. Prior to submitting its Interconnection Request, the Interconnection Customer may ask the Cooperative's interconnection contact employee or office whether the proposed interconnection is subject to these procedures.
- 1.1.5. Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. Interconnected facilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

## 1.2 Pre-Request Response

- 1.2.1. The Cooperative will designate on its Internet web site an employee or office to handle informal requests from the Interconnection Customer.
- 1.2.2. The Interconnection Customer may request a Pre-Request Response by providing the Cooperative details of a potential project in writing, including site address, grid coordinates, project size and proposed Point of Interconnection.

Electric system information provided to the Interconnection Customer should include number of phases and voltage of closest circuit, distance

to existing source, distance to substation, and other information and/or materials useful to an understanding of an interconnection at a particular point on the Cooperative's System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The Pre-Request Response produced by the Cooperative is non-binding and does not confer any rights. The Interconnection Customer must still meet the Section 1.4 requirements to apply to interconnect to the Cooperative's system and to obtain a Queue Number. Any one developer will have no more than five (5) requests for Pre-Request Responses in the Pre-Request Response queue at one time.

### 1.3 Pre-Application Report

1.3.1. In addition to, or instead of, requesting an informal Pre-Request Response, an Interconnection Customer may submit a formal written Pre-Application Report request form (see Attachment 3) along with a non-refundable fee of \$300 for a Pre-Application Report on a proposed project at a specific site. The Cooperative will provide the Pre-Application data described in Section 1.3.2 to the Interconnection Customer following receipt of the completed request form and payment of the \$300 fee. The Pre-Application Report produced by the Cooperative is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Cooperative's system and to obtain a Queue Number. The written Pre-Application Report request form will include the information in Sections 1.3.1.1 through 1.3.1.8 below to clearly and sufficiently identify the location of the proposed Point of Interconnection. Any one developer will have no more than five (5) requests for Pre-Application Reports in the Pre-Application Report queue at one time.

- 1.3.1.1. Project contact information, including name, address, phone number, and email address.
- 1.3.1.2. Project location (street address, location map with nearby cross streets and town, etc).
- 1.3.1.3. Meter number, pole number, location map or other equivalent information identifying proposed Point of Interconnection, if available.
- 1.3.1.4. Generator Type (e.g., solar, wind, combined heat and power, etc.)
- 1.3.1.5. Size (alternating current kW).
- 1.3.1.6. Single or three phase generator configuration.

- 1.3.1.7. Stand-alone generator (no onsite load, not including station service – Yes or No?)
  - 1.3.1.8. Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify if the load is expected to change.
- 1.3.2. Using the information provided by the Interconnection Customer in the Pre-Application Report request form in Section 1.3.1, the Cooperative will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection. This selection by the Cooperative does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional Pre-Application Reports if information about multiple Points of Interconnection is requested. Subject to Section 1.3.3, the Pre-Application Report will include the following information:
- 1.3.2.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Interconnection.
  - 1.3.2.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Interconnection.
  - 1.3.2.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.
  - 1.3.2.4 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
  - 1.3.2.5 Nominal distribution circuit voltage at the proposed Point of Interconnection.
  - 1.3.2.6 Approximate circuit distance between the proposed Point of Interconnection and the substation.
  - 1.3.2.7 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load and absolute minimum load, when available.
  - 1.3.2.8 Number and rating of protective devices and number and



type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area. Identify whether the substation has a load tap changer.

- 1.3.2.9 Number of phases available at the proposed Point of Interconnection. If a single phase, distance from the three-phase circuit.
  - 1.3.2.10 Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.
  - 1.3.2.11 Whether the Point of Interconnection is located on a spot network, grid network, or radial supply.
  - 1.3.2.12 Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
  - 1.3.2.13 Other information regarding an Affected System the Cooperative deems relevant to the Interconnection Customer.
- 1.3.3. The Pre-Application Report need only include existing data. A Pre-Application Report request does not obligate the Cooperative to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the Cooperative cannot complete all or some of the Pre-Application Report due to lack of available data, the Cooperative will provide the Interconnection Customer with a Pre-Application Report that includes the data that is readily available. Notwithstanding any of the provisions of this section, the Cooperative will, in good faith, include data in the Pre-Application Report that represents the best available information at the time of reporting. Further, the total capacity provided in Section 1.3.2.1 does not indicate that an interconnection of aggregate generation up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, and data provided in the Pre-Application Report may become outdated at the time of the submission of the complete Interconnection Request.

## 1.4 Interconnection Request

- 1.4.1 The Interconnection Customer will submit its Interconnection Request to the Cooperative, and the Cooperative will notify the Interconnection Customer confirming receipt.

The Interconnection Request Application Form will be considered complete upon receipt of the following:

- 1.4.1.1 A substantially complete Interconnection Request Application Form contained in Attachment 2 submitted by a valid legal entity registered with the North Carolina Secretary of State, and signed by the Interconnection Customer.
- 1.4.1.2 The applicable fee or Interconnection Request Deposit. The applicable fee is specified in the Interconnection Request Application Form and applies to a certified inverter-based Generating Facility no larger than 20 kw reviewed under Section 2 and to any certified Generating Facility no larger than the capacity specified in Section 3.1 to be evaluated under the Section 3 Fast Track Process.

For all Generating Facilities that do not qualify for the 20 kw Inverter Process or the Fast Track Process, fail the Fast Track and Supplemental Review Process under Section 3.0 and are to be evaluated under the Section 4 Study Process, an Interconnection Request Deposit is required. The Interconnection Request Deposit will equal \$20,000 plus one dollar (\$1.00) per kWac of capacity specified in the Interconnection Request Application Form, not to exceed an aggregate Interconnection Request Deposit of \$100,000. The Interconnection Request Deposit is intended to cover the Cooperative's reasonably anticipated costs for conducting the System Impact Study and the Facilities Study. Such deposit will, however, be applicable towards the cost of all studies, Upgrades and Interconnection Facilities.

- 1.4.1.3 A Site Control Verification—— letter (sample included within Attachment 3).
  - 1.4.1.4 A site plan indicating the location of the project, the property lines and the desired Point of Interconnection.
  - 1.4.1.5 An electrical one-line diagram for the Generating Facility.
  - 1.4.1.6 Inverter specification sheets for the Interconnection Customer's equipment that will be utilized.
- 1.4.2 The original date- and time-stamp applied to the Interconnection Request Application Form shall be accepted as the qualifying date- and time-stamp for the purposes of establishing Queue Position and any timetable in these procedures.

- 1.4.3 An Interconnection Request will be deemed complete upon submission of the listed information in Section 1.4.1 to the Cooperative.
- 1.4.4 If the Interconnection Request Application Form and/or the initial supporting documentation are incomplete, the Cooperative will provide, along with notice that the information is incomplete, a written list detailing all information that must be provided. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit the listed information. If the Interconnection Customer does not provide the listed information or a request for an extension of time, not to exceed ten (10) additional Business Days, within the deadline, the Interconnection Request will be deemed withdrawn.

## 1.5 Modification of the Interconnection Request

“Material Modification” means a modification to machine data or equipment configuration or to the interconnection site of the Generating Facility that has a material impact on the cost, timing or design of any Interconnection Facilities or Upgrades. Material Modifications include project revisions proposed at any time after receiving notification by the Cooperative of a complete Interconnection Request pursuant to Section 1.4.3 that 1) alters the size or output characteristics of the Generating Facility from its Cooperative-approved Interconnection Request submission; or 2) may adversely impact other Interdependent Interconnection Requests with higher Queue Numbers.

1.5.1 Indicia of a Material Modification, include, but are not limited to:

- 1.5.1.1 A change in Point of Interconnection (POI) to a new location, unless the change in a POI is on the same circuit less than two (2) poles away from the original location, and the new POI is within the same protection zone as the original location;
- 1.5.1.2 A change or replacement of generating equipment such as generator(s), inverter(s), transformers, relaying, controls, etc. that is not a like-kind substitution in size, ratings, impedances, efficiencies or capabilities of the equipment specified in the original or preceding Interconnection Request;
- 1.5.1.3 A change from certified to non-certified devices (“certified” means certified by an OSHA recognized Nationally Recognized Test Laboratory (NRTL), to relevant UL and IEEE standards, authorized to perform tests to such standards);
- 1.5.1.4 A change of transformer connection(s) or grounding from that originally proposed;

- 1.5.1.5 A change to certified inverters with different specifications or different inverter control specifications or set-up than originally proposed;
  - 1.5.1.6 An increase of the AC output of a Generating Facility; or
  - 1.5.1.7 A change reducing the AC output of the generating facility by more than 10%.
- 1.5.2 The following are not indicia of a Material Modification:
- 1.5.2.1 A change in ownership of a Generating Facility; the new owner, however, will be required to execute a new Interconnection Agreement and Study agreement(s) for any Study which has not been completed and the Report issued by the Cooperative.
  - 1.5.2.2 A change or replacement of generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. that is a like-kind substitution in size, ratings, impedances, efficiencies or capabilities of the equipment specified in the original or preceding Interconnection Request;
  - 1.5.2.3 An increase in the DC/AC ratio that does not increase the maximum AC output capability of the generating facility;
  - 1.5.2.4 A decrease in the DC/AC ratio that does not reduce the AC output capability of the generating facility by more than 10%.
- 1.5.3 To the extent Interconnection Customer proposes to modify any information provided in the Interconnection Request deemed complete by the Cooperative, the Interconnection Customer will submit any such modifications to the Cooperative in writing. If the Cooperative determines that the proposed modification(s) constitutes a Material Modification, the Cooperative will notify the Interconnection Customer in writing that the modification is a Material Modification and the Interconnection Request will be withdrawn from the Queue unless the Interconnection Customer withdraws the proposed Material Modification within 15 Calendar Days of receipt of the Cooperative's written notification. If the modification is determined by the Cooperative not to be a Material Modification, then the Cooperative will notify the Interconnection Customer in writing that the modification has been accepted and that the Interconnection Customer shall retain its Queue Number. Any dispute as to the Cooperative's determination that a

modification constitutes a Material Modification will proceed in accordance with Section 6.2 below.

#### 1.5.4 Modification Inquiry

1.5.4.1 Prior to making any modification, the Interconnection Customer may first submit an informal modification inquiry in writing that requests the Cooperative to evaluate whether such modification to the original or most recent Interconnection Request is a Material Modification. The Interconnection Customer will provide specific details on all changes that are to be considered by the Cooperative.

1.5.4.2 In response to Interconnection Customer's informal request, if the Cooperative evaluates the proposed modification(s) and determines that the changes are not Material Modifications, the Cooperative will inform the Interconnection Customer in writing. If the Interconnection Customer wishes to proceed with the proposed modification(s), the Interconnection Customer will submit a revised Interconnection Request Application Form that reflects the approved modifications.

### 1.6 Site Control

Documentation of site control will be submitted to the Cooperative with the Interconnection Request using the sample site control verification form included in the Interconnection Request in Attachment 3.

Site control may be demonstrated through.

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

Should Interconnection Customer's site control lapse at any point in time prior to interconnection and such lapse is brought to the attention of Cooperative, the Cooperative will notify the Interconnection Customer in writing of the alleged lapse in site control. The Interconnection Customer will 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.

## 1.7 Queue Number

- 1.7.1 The Cooperative will assign a Queue Number pursuant to Section 1.4.2. The Queue Number of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. Subject to Section 1.8, the Queue Number of each Interconnection Request will also determine the order in which each Interconnection Request is studied Modification Inquiry.
- 1.7.2 Subject to the provisions of Sections 1.4, 1.5, and 1.6, Generating Facilities will retain the Queue Number assigned to their initial Interconnection Request throughout the review process, including where moving through the processes covered by Sections 2, 3, and 4.

## 1.8 Interdependent Projects

“Interdependent Customer” (or “Project”), “Project A” and “Project B” are defined in the glossary of terms (see Attachment 1).

- 1.8.1 Upon an Interconnection Customer’s submission of a Section 1.4 Interconnection Request for the Section 3 Fast Track Process or Section 4 Study Process, the Cooperative will review the Interconnection Request and make a preliminary determination whether any known Interdependency exists between the Interconnection Customer’s proposed Generating Facility and any other Interconnection Customer with a lower Queue Number. Any preliminary determination by the Cooperative that the Generating Facility does not create an Interdependency will result in the Interconnection Request being preliminarily designated as a Project A and the Cooperative will proceed immediately to either the Section 3 Fast Track Process or the Section 4 Study process, as applicable. The Cooperative will advise the Interconnection Customer at the Section 4.2 Scoping Meeting, if requested by the Interconnection Customer, regarding its preliminary determination of whether Interdependency would be created by the Generating Facility. A Generating Facility designated and reviewed for system impacts as a Project A may still be determined to create an Interdependency and may be designated by the Cooperative as an Interdependent Project during the Section 4.3 System Impact Study Process. Once the System Impact Study report is issued by the Cooperative designated a Generating Facility as a Project A for purposes of the Section 4.4 Facilities Study, the Interconnection Request will retain this designation without change.
- 1.8.2 If the Cooperative determines that that the Interconnection Customer’s proposed Generating Facility is Interdependent with one (1) other Interconnection Request with a lower Queue Number, the

Cooperative will notify the Interconnection Customer at the Section 4.2 Scoping Meeting that the Interconnection Request is designated as a Project B.

- 1.8.2.1 Following the Section 4.2 Scoping Meeting and execution of the System Impact Study Agreement, the Project B will proceed to the Section 4.3 System Impact Study process. Project B will receive a System Impact Study report that assumes the interdependent Project A Interconnect Request with the lower Queue Number completes construction and interconnection and another System Impact Study report that assumes the interdependent Project A Interconnect Request with the lower Queue Number is not constructed and is withdrawn.
- 1.8.2.2 The Cooperative will not proceed to a Project B Facilities Study until after the Project B Interconnection Customer returns a signed Facilities Study Agreement to the Cooperative and the Cooperative has issued the Section 4.14.4.4 Facilities Study report for the Interdependent Project A. The Project B Interconnection Customer will then have the option of whether to proceed with a Facility Study, or wait until the Interdependent Project A executes a Final Interconnection Agreement and makes payment for any required Upgrade, Interconnection Facilities, and other charges under Section 5.2. If the Project B Interconnection Customer with a signed Facilities Study Agreement prior to Interdependent Project A committing to Section 5 construction, the Project B's Facility Study will assume that the interdependent Project A Interconnection Request with the lower Queue Number completes construction and interconnection. If Project A is later cancelled prior to the Project A Interconnection Customer making payment for the required Upgrade, the Cooperative will revise the Project B Facility Study at Project B Interconnection Customer's expense. If Project B Interconnection Customer chooses to wait to request the Project B Facility Study, Project B is not required to adhere to the timeline in Section 4.14.4.1 until Project A has signed an Interconnection Agreement and paid the payment charge specified in Section 5.1.5.2.4 of these Interconnection Procedures or withdrawn.
- 1.8.3 If the Cooperative determines that that the Interconnection Customer's proposed Generating Facility is Interdependent with more than one (1) other Interconnection Request with lower Queue Numbers, the Cooperative will make a preliminary determination and notify the Interconnection Customer at the Section 4.2 Scoping Meeting, if requested by the Interconnection Customer, describing generally the

number and type of Interdependencies of Interconnection Requests with lower Queue Numbers.

1.8.3.1 The Cooperative will not study a project if it is interdependent with more than one prior project, each of which has a lower Queue Number. The Cooperative will study a project when interdependency with only one lower Queue Number prior project exists. The removal of interdependency with multiple projects may be the result of upgrades to the Cooperative System which eliminate the cause of the interdependency, 2) withdrawal of prior interdependent project(s) with lower Queue Numbers, or 3) a lower Queue Number prior project signing an Interconnection Agreement and making payments required in Section 5.1.5.2.4.

1.8.3.2 Within five (5) Business Days of an Interconnection Request becoming a Project B Interconnection Request that is Interdependent with only one (1) other prior Interconnection Request with a lower Queue Number, the Cooperative will schedule the Section 4.2 Scoping Meeting and provide the new Project B an executable System Impact Study Agreement. Upon being designated by the Cooperative as a Project B the Interconnection Customer's Queue Number will be used to determine the order in which the Interconnection Request is studied under section 4.3 relative to all other Interconnection Requests.

## **2 Optional 20 kw Inverter Process for Certified Inverter-Based Generating Facilities No Larger than 20 kw**

### **2.1 Applicability**

The 20 kw Inverter Process is available to an Interconnection Customer 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 Customer's proposed Generating Facility meets the codes, standards, and certification requirements of Attachments 4 and 5 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 may require the Interconnection Customer to install a manual load- break disconnect switch or safety switch as a clear visible indication of switch position between the Cooperative System and the Interconnection Customer. When the installation of the switch is not otherwise



required (e.g. National Electric Code, state or local building code) and is deemed necessary by the Cooperative for certified, inverter-based generators no larger than 10 kW, the Cooperative will reimburse the Interconnection Customer for the reasonable cost of installing a switch that meets the Cooperative's specifications (see also Section 6.16).

## 2.2 Interconnection Request

The Interconnection Customer will complete the Interconnection Request Application Form for a certified inverter-based Generating Facility no larger than 20 kw in the form provided in Attachment 6 and submit it to the Cooperative, together with the non-refundable processing fee specified in the Interconnection Request Application Form and the documentation required pursuant to Section 1.4.1.

- 2.2.1. The Cooperative will verify that the Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process. (See Section 3.13.2.1.) Unless the Cooperative determines and demonstrates that the Generating Facility cannot be interconnected safely and reliably, the Cooperative will approve the Interconnection Request upon fulfillment of all requirements in Section 1.4 and return the Interconnection Request Application Form to the Interconnection Customer.
- 2.2.2. If the proposed interconnection passes the screens but the Cooperative determines that minor Cooperative construction is required to interconnect the Generating Facility to the Cooperative's system, the Interconnection Request will be approved and the Cooperative will provide the Interconnection Customer a non-binding good faith estimate of the cost of interconnection along with the Interconnection Request Application Form.
- 2.2.3. If the proposed interconnection passes the screens, but the costs of interconnection including System Upgrades and Interconnection Facilities cannot be determined without further study or review, the Cooperative will notify the Interconnection Customer that the Cooperative will need to complete a Facilities Study under Section 4.4 to determine the necessary costs of interconnection.
- 2.2.4. Screens failure: Despite the failure of one or more screens, the Cooperative, at its sole option, may approve the interconnection provided such approval is consistent with safety and reliability. If the Cooperative cannot determine that the Generating Facility may be interconnected consistent with safety, reliability, and power quality standards, the Cooperative may either:
  - 2.2.4.1 Notify the Interconnection Customer in writing that the

Cooperative is continuing to evaluate the Generating Facility under Section 3.4 Supplemental Review if the Cooperative concludes that the Supplemental Review might determine that the Generating Facility could continue to qualify for interconnection pursuant to Fast Track: or

- 2.2.4.2 Offer to continue evaluating the Interconnection Request under the Section 4 Study Process.

## 2.3 Certificate of Completion

- 2.3.1 After installation of the Generating Facility, the Interconnection Customer will submit the Certificate of Completion in the form provided in Attachment 6 to the Cooperative. Prior to parallel operation, the Cooperative may inspect the Generating Facility for compliance with standards including a witness test and the scheduling of an appropriate metering replacement, if necessary.
- 2.3.2 If a witness test is required but the outcome is not satisfactory, the Cooperative has the right to disconnect the Generating Facility. The Interconnection Customer has no right to operate in parallel with the Cooperative until being notified by the Cooperative that it is so-authorized.
- 2.3.3 Interconnection and parallel operation of the Generating Facility is subject to the Terms and Conditions stated in Attachment 6 of these procedures.

## 2.4 Contact Information

The Interconnection Customer must provide its contact information. If another entity is responsible for interfacing with the Cooperative, that contact information must also be provided on the Interconnection Request Application Form.

## 2.5 Ownership Information

The Interconnection Customer will provide the legal name(s) of the owner(s) of the Generating Facility.

## 2.6 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.

### 3 Optional Fast Track Process for Certified Generating Facilities

#### 3.1 Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Generating Facility with the Cooperative's System if the Generating Facility's capacity does not exceed the size limits identified in the table below. Generating Facilities below these limits are eligible for Fast Track review. However, Fast Track eligibility is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Generating Facility will pass the Fast Track screens in Section 3.2 below or the Supplemental Review screens in Section 3.4 below.

Fast Track eligibility is determined based upon the generator type, the size of the generator, voltage of the line and the location of and the type of line at the Point of Interconnection. All Generating Facilities connecting to lines greater or equal to 35 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. For inverter-based systems, only certified inverter-based systems are eligible for the Fast Track Process and the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds set forth in the table below. In addition to the size threshold, the Interconnection Customer's proposed Generating Facility must meet the codes, standards, and certification requirements of Attachments 4 and 5 of these procedures, or the Cooperative has to have reviewed the design or tested the proposed Generating Facility and be satisfied that it is safe to operate.

<b>Fast Track Eligibility for Inverter-Based Systems<sup>1</sup></b>		
<b>Line Voltage</b>	<b>Fast Track Eligibility Regardless of Location</b>	<b>Fast Track Eligibility on a Mainline<sup>2</sup> and ≤ 2.5 Electrical Circuit Miles from Substation<sup>3</sup></b>
< 5 kV	≤ 100 kw	≤ 500 kw
≥ 5 kV and < 15 kV	≤ 1 MW	≤ 2 MW
≥ 15 kV and < 35 kV	≤ 2 MW	≤ 2 MW

<sup>1</sup> Must be an UL certified inverter.

<sup>2</sup> For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

<sup>3</sup> An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to Section 1.2.

## 3.2 Initial Review

After the Cooperative notifies the Interconnection Customer it has received a complete Interconnection Request pursuant to Section 1.4, the Cooperative will perform an initial review using the screens set forth below, will notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Cooperative's determinations under the screens.

### 3.2.1. Screens

- 3.2.1.1. The proposed Generating Facility's Point of Interconnection must be on a portion of the Cooperative's Distribution System.
- 3.2.1.2. For interconnection of a proposed Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Generating Facility, on the circuit will not exceed 15% of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Cooperative's System connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
- 3.2.1.3. For interconnection of a proposed Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Generating Facility, on the circuit will not exceed 90% of the circuit and/or bank minimum load at the substation.
- 3.2.1.4. All synchronous and induction machines must be connected to a distribution circuit where the local minimum load to generation ratio on the circuit line segment is larger than 3 to 1. A 3-1 load to generation ratio screen utilizes actual recorded data that is sufficient to establish the minimum threshold.
- 3.2.1.5. For interconnection of a proposed Generating Facility to the load side of spot network protectors, the proposed Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, will not exceed the smaller of 5% of a spot

network's maximum load or 50 kw.

- 3.2.1.6. The proposed Generating Facility, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.
- 3.2.1.7. The proposed Generating Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor will the interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.
- 3.2.1.8. Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service to be provided to the Interconnection Customer, including line configuration and the transformer connection for the purpose of limiting the potential for creating over-voltages on the Cooperative's System due to a loss of ground during the operating time of any anti-islanding function.

<b>Primary Line Type</b>	<b>Distribution</b>	<b>Type of Interconnection to Primary Distribution Line</b>	<b>Result/Criteria</b>
Three-phase, three wire		3-phase or single phase, phase-to-phase	Pass Screen
Three-phase, four wire		Effectively-grounded three-phase or single phase, line-to-neutral	Pass Screen

- 3.2.1.9. If the proposed Generating Facility is to be interconnected on a single-phase shared secondary, the aggregate Generating Facility capacity on the shared secondary, including the proposed Generating Facility, will not exceed 65% of the transformer nameplate rating
- 3.2.1.10. If the proposed Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition will not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

- 3.2.1.11. The Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Generating Facility proposes to interconnect will not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of Interconnection).

### 3.2.2. Screen Results

- 3.2.2.1 If the proposed interconnection passes the screens and requires no construction by the Cooperative on its own System, the Interconnection Request will be approved and the Cooperative will provide the Interconnection Customer an executable Interconnection Agreement.
- 3.2.2.2 If the proposed interconnection passes the screens and the Cooperative is able to determine without further study or review that only minor Cooperative construction is required to interconnect the Generating Facility to the Cooperative's system, the Interconnection Request will be approved and the Cooperative will provide the Interconnection Customer a non-binding good faith estimate of the cost of interconnection along with an executable Interconnection Agreement.
- 3.2.2.3 If the proposed interconnection passes the screens, but the costs of interconnection including System Upgrades and Interconnection Facilities cannot be determined without further study or review, the Cooperative will notify the Interconnection Customer that the Cooperative will need to complete a Facilities Study under Section 4.4 to determine the necessary costs of interconnection.
- 3.2.2.4 If the proposed interconnection fails the screens, but the Cooperative determines that the Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, and requires no construction by the Cooperative on its own System, the Cooperative will provide the Interconnection Customer an executable Interconnection Agreement.
- 3.2.2.5 If the proposed interconnection fails the screens, but the Cooperative determines that the Generating Facility may

nevertheless be interconnected consistent with safety, reliability, and power quality standards and the Cooperative is able to determine without further study or review that only minor Cooperative construction is required to interconnect with the Generating Facility, the Interconnection Request will be approved and the Cooperative will provide the Interconnection Customer a non-binding good faith estimate of the cost of interconnection along with an executable Interconnection Agreement.

- 3.2.2.6 If the proposed interconnection fails the screens, and the Cooperative does not or cannot determine from the initial review that the Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Cooperative will provide the Interconnection Customer with the opportunity to attend a customer options meeting as described in Section 3.3 below.

### 3.3 Customer Options Meeting

If the Cooperative determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety, reliability, or power quality problems, the Cooperative will notify the Interconnection Customer and offer to convene a customer options meeting to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Generating Facility to be connected safely and reliably. At the time of notification of the Cooperative's determination, or at the customer options meeting, the Cooperative will consider:

- 3.3.1 Whether to offer to perform facility modifications or minor modifications to the Cooperative's System (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Cooperative's System. If offered, the Interconnection Customer will have ten (10) Business Days to agree to pay for the modifications to the Cooperative's electric system or the Interconnection Request will be deemed to be withdrawn. If the Interconnection Customer agrees to pay for the modifications to the Cooperative's electric system, the Cooperative will provide the Interconnection Customer with an executable Interconnection Agreement; or
- 3.3.2 Whether to offer to perform a supplemental review under Section 3.4 if the Cooperative concludes that the supplemental review might

determine that the Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs of such review. If offered, the Interconnection Customer will have ten (10) Business Days to accept the Cooperative's offer to perform a Supplemental Review and post any deposit requirement for the Supplemental Review, or the Interconnection Request will be deemed to be withdrawn; or

- 3.3.3 Whether to offer to continue evaluating the Interconnection Request under the Section 4 Study Process. If offered, the Interconnection Customer will have ten (10) Business Days to agree in writing to its Interconnection Request continuing to be evaluated under the Section 4 Study Process, and post any deposit requirement for the Study Process, or the Interconnection Request will be deemed to be withdrawn.

### 3.4 Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer will agree in writing within 15 Business Days of the offer, and submit a deposit for the estimated costs or the request will be deemed to be withdrawn. The Interconnection Customer will be responsible for the Cooperative's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Cooperative will return such excess within 20 Business Days of the invoice without interest.

- 3.4.1 After receipt of the deposit for a supplemental review, the Cooperative will determine if the Generating Facility can be interconnected safely and reliably.
  - 3.4.1.1 If so, the Cooperative will forward an executable Interconnection Agreement to the Interconnection Customer.
  - 3.4.1.2 If so, but Interconnection Customer facility modifications are required to allow the Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Cooperative will forward an executable Interconnection Agreement to the Interconnection Customer after confirmation that the Interconnection Customer has agreed to make the necessary modifications at the Interconnection Customer's cost.



- 3.4.1.3 If so, but minor modifications to the Cooperative's System are required to allow the Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Cooperative will forward an executable Interconnection Agreement to the Interconnection Customer that requires the Interconnection Customer to pay the costs of such System modifications prior to interconnection.

If not, the Interconnection Request will continue to be evaluated under the Section 4 Study Process, provided the Interconnection Customer indicates it wants to proceed and submits the required deposit within 15 Business Days.

## 4 Study Process

### 4.1 Applicability

The Study Process will be used by an Interconnection Customer proposing to interconnect its Generating Facility with the Cooperative's System if the Generating Facility exceeds the size limits for the Section 3 Fast Track Process, is not certified, or is certified but did not pass the Fast Track Process or the 20 kw Inverter Process. The Interconnection Customer may be required to submit additional documentation, as may be requested by the Cooperative in writing, during the Study Process.

### 4.2 Scoping Meeting

- 4.2.1. A scoping meeting will be held after the Interconnection Request is deemed complete. The Cooperative and the Interconnection Customer will bring appropriate personnel and materials as may be reasonably required to accomplish the purpose of the meeting. The scoping meeting may be omitted by mutual agreement.
- 4.2.2. The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties will further discuss whether the Cooperative should perform a System Impact Study, a Facilities Study, or proceed directly to an Interconnection Agreement.
- 4.2.3. If the Cooperative, after consultation with the Interconnection Customer, determines that the project should proceed to a System Impact Study or Facilities Study, the Cooperative will provide the Interconnection Customer either a System Impact Study Agreement (Attachment 7) or a Facilities Study Agreement (Attachment 8), as

appropriate, including an outline of the scope of the study or studies and a nonbinding good faith estimate of the cost to perform the study or studies, which cost will be subtracted from the deposit outlined in Section 1.4.1.2.

- 4.2.4. If the Parties agree not to perform a System Impact Study or Facilities Study, but to proceed directly to an Interconnection Agreement, the Parties will proceed to the Construction Planning Meeting as called for in Section 5.

### 4.3 System Impact Study

- 4.3.1. In order to retain its Queue Position, the Interconnection Customer must return a System Impact Study Agreement signed by the Interconnection Customer within 15 Business Days of receiving an executable System Impact Study Agreement as provided for in Section 4.2.3.
- 4.3.2. The scope of and cost responsibilities for a System Impact Study are described in the System Impact Study Agreement. The time allotted for completion of the System Impact Study will be as set forth in the System Impact Study Agreement.
- 4.3.3. The System Impact Study will identify and detail the electric system impacts that would result if the proposed Generating Facility were interconnected without project modifications or electric system modifications, or to study potential impacts, including, but not limited to, those identified in the scoping meeting. The System Impact Study will evaluate the impact of the proposed interconnection on the reliability of the electric system, including the distribution and transmission systems, if required.
- 4.3.4. The System Impact Study report will provide the Preliminary Estimated Upgrade Charge, which is a preliminary indication of the cost and length of time that would be necessary to correct any System problems identified in those analyses and implement the interconnection.
- 4.3.5. The System Impact Study report will provide the Preliminary Estimated Interconnection Facilities Charge, which is a preliminary non-binding indication of the cost and length of time that would be necessary to provide the Interconnection Facilities.
- 4.3.6. If the Cooperative has determined that an Interdependency exists and the Project is designated as a Project B, the Project B Interconnection Request will receive a System Impact Study report, addressing a scenario assuming Project A is constructed and a second scenario assuming Project A is not constructed.

- 4.3.7. After receipt of the System Impact Study report(s), the Interconnection Customer will inform the Cooperative in writing if it wishes to withdraw the Interconnection Request and to request an accounting of any remaining deposit amount pursuant to Section 6.3.
- 4.3.8. If requested by the Interconnection Customer following delivery of the System Impact Study report, the Cooperative will provide the Interconnection Customer an executable Interim Interconnection Agreement. The Interim Interconnection Agreement will be identical in form and content to the Final Interconnection Agreement, but will not include Detailed Estimated Upgrade Charges, Detailed Estimated Interconnection Facility Charge, Appendix 4 (Construction Milestone schedule listing tasks, dates and the party responsible for completing each task), and other information that otherwise would be determined in Section 5.
- 4.3.9. At the time the System Impact Study Report is provided to the Interconnection Customer, the Cooperative will also deliver an executable Facilities Study Agreement to the Interconnection Customer. After receipt of the System Impact Study report and Facilities Study Agreement, when the Interconnection Customer is ready to proceed with the design and construction of the Upgrades and Interconnection Facilities, the Interconnection Customer will return the signed Facilities Study Agreement to the Cooperative in accordance with Section 4.4 below.

#### **4.4 Facilities Study**

- 4.4.1. A solar Interconnection Customer must request a Facilities Study by returning the signed Facilities Study Agreement within 60 Calendar Days of the date the Facilities Study Agreement was provided. Any other Interconnection Customer must request a Facility Study by returning the signed Facilities Study Agreement within 180 Calendar Days of the date the Facilities Study Agreement was provided. Failure to return the signed Facilities Study Agreement within the foregoing applicable time period will result in the Interconnection Request being deemed withdrawn.
- 4.4.2. When an Interdependent Project A exists, a Project B Interconnection Request will not be required to comply with Section 4.4.1 until Project A has signed the Final Interconnection Agreement, and made payments and provided Financial Security as specified in Section 5.2 or withdrawn. If Project B has not provided written notice of its intent to proceed to a Facilities Study under Section 1.8.2.2, upon the Project A fulfilling the requirements in Section 5.2 or withdrawing the Interconnection Request, the Cooperative will notify the Project B Interconnection Customer that it has the time specified in Section 4.4.1 to return the signed Facilities

Study Agreement or the Interconnection Request will be deemed withdrawn.

- 4.4.3. The scope of and cost responsibilities for the Facilities Study are described in the Facilities Study Agreement. The time allotted for completion of the Facilities Study is described in the Facilities Study Agreement.
- 4.4.4. The Facilities Study report will specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the System Impact Studies and to allow the Generating Facility to be interconnected and operated safely and reliably.
- 4.4.5. The Cooperative will design any required Interconnection Facilities and/or Upgrades under the Facilities Study Agreement. The Cooperative may contract with consultants to perform activities required under the Facilities Study Agreement. The Interconnection Customer and the Cooperative may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Cooperative, under the provisions of the Facilities Study Agreement. If the Parties agree to separately arrange for design and construction, and provided that critical infrastructure security and confidentiality requirements can be met, the Cooperative will make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.

## **5 Interconnection Agreement and Scheduling**

### **5.1 Construction Planning Meeting**

- 5.1.1. Within ten (10) Business Days of receipt of the Facility Study report, the Interconnection Customer will request a Construction Planning Meeting, where failure to comply will result in the Interconnection Request being deemed withdrawn. The Construction Planning Meeting request will be in writing and will include the Interconnection Customer's reasonably requested date for completion of the construction of the Upgrades and Interconnection Facilities.
- 5.1.2. The Construction Planning Meeting will be scheduled within a reasonable period following the Section 5.1.1 request from the Interconnection Customer, or as otherwise mutually agreed to by the parties.

5.1.3. The purpose of the Construction Planning Meeting is to identify the tasks for each party and discuss and determine the milestones for the construction of the Upgrades and Interconnection Facilities. Agreed upon milestones will be specific as to scope of action, responsible party, and date of deliverable and will be recorded in the Final Interconnection Agreement (see Attachment 9) to be provided to Interconnection Customer pursuant to Section 5.1.5.2.1 below. If the Cooperative cannot complete the installation of the required Upgrades and Interconnection Facilities within two (2) months of the Interconnection Customer's reasonably requested In-Service Date, the Interconnection Customer will have the option of payment for work outside of normal business hours or hiring a Cooperative-approved subcontractor to perform the distribution Upgrades. Any Cooperative-approved subcontractor performance remains subject to Cooperative oversight during construction. The Cooperative will make a list of Cooperative-approved subcontractors available to the Interconnection Customer promptly upon request.

## 5.2 Final Interconnection Agreement

- 5.2.1. After the Construction Planning Meeting, the Cooperative will provide an executable Final Interconnection Agreement containing the Detailed Estimated Upgrade Charges, Detailed Estimated Interconnection Facility Charge, Appendix H (Construction Milestone and payment schedule listing tasks, dates and the party responsible for completing each task), and other appropriate information, requirements, and charges. The Final Interconnection Agreement will replace any Interim Interconnection Agreement, which will terminate upon execution of the Final Interconnection Agreement by the Interconnection Customer and the Cooperative.
- 5.2.2. If the Interconnection Customer does not execute and return the Final Interconnection Agreement within ten (10) Business Days of receipt from Cooperative, the Interconnection Request will be deemed withdrawn.
- 5.2.3. After the Parties execute the Final Interconnection Agreement, the Cooperative will return a copy to the Interconnection Customer and initiate interconnection.
- 5.2.4. The Final Interconnection Agreement will specify milestones for payment for Upgrades and Interconnection facilities (and/or, if acceptable to the Cooperative, provision of Financial Security) that are required prior to the start of design and construction. Failure to make payment or provide Financial Security within sixty (60) Calendar Days after the date the Interconnection Agreement is delivered to the Interconnection Customer for signature will result in the Interconnection Request being

deemed withdrawn.

### 5.3 Interconnection Construction

Construction of the Upgrades and Interconnection Facilities will proceed as provided in the Final Interconnection Agreement and Appendices.

## 6 Provisions that Apply to All Interconnection Requests

### 6.1 Reasonable Efforts

The Cooperative will endeavor to complete its obligations pursuant to these procedures within reasonable periods. If for any reason the Cooperative cannot complete an obligation within a reasonable period, it will at its earliest opportunity notify the Interconnection Customer, explain the reason for the delay, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

### 6.2 Disputes

6.2.1. The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this section. Where an Interconnection Customer seeks to resolve a dispute involving its Queue Number according to the provisions of this section, any disputed loss of Queue Number will not be final until Interconnection Customer abandons the process set out in this section or the matter is otherwise resolved.

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

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

### 6.3 Withdrawal of An Interconnection Request

~~6.3.4~~6.3.1. An Interconnection Customer may withdraw an Interconnection Request at any time prior to executing a Final Interconnection Agreement by providing the Cooperative with a written request for withdrawal.

~~6.3.5~~6.3.2. An Interconnection Request will be deemed withdrawn if the Interconnection Customer 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.

~~6.3.6~~6.3.3. Within 90 Calendar Days of any voluntary or deemed withdrawal of the Interconnection Request, the Cooperative will provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such work performed, and (2) the Interconnection Customer's previous aggregate Interconnection Facility Request Deposit payments to the Cooperative for such work. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Cooperative will invoice the Interconnection Customer for the amount due and the Interconnection Customer will make payment to the Cooperative within 30 Calendar Days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Cooperative will refund to the Interconnection Customer, without interest, an amount equal to the difference within 30 Calendar Days of the final accounting report.

#### **6.4 Interconnection Metering**

Any metering necessitated by the use of the Generating Facility will be installed at the Interconnection Customer's expense in accordance with all applicable regulatory requirements or the Cooperative's specifications.

#### **6.5 Commissioning**

Commissioning tests of the Interconnection Customer's installed equipment will be performed pursuant to applicable codes and standards. If the Interconnection Customer is proceeding under Section 2.3.1, 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.

#### **6.6 Confidentiality**

- 6.6.1. Confidential Information will mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential."
- 6.6.2. 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 these procedures. Each Party receiving Confidential Information will hold such information

in confidence and will 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 these procedures, or to fulfill legal or regulatory requirements.

6.6.2.1. Each Party will 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.

6.6.2.2. 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.

6.6.3. If information is requested by any regulatory agency or commission, or pursuant to subpoena or other legal process, from one of the Parties that is otherwise required to be maintained in confidence pursuant to these procedures, the Party will provide the requested information within the time provided for in the request. The disclosing Party may request that the information be treated as confidential and non-public in accordance with applicable law and withheld from public disclosure.

6.6.4. All information pertaining to a project will be provided to the new owner in the case of a change of control of the existing legal entity or a change of ownership to a new legal entity.

## **6.7 Comparability**

The Cooperative will receive, process, and analyze all Interconnection Requests received under these procedures in a timely manner, as set forth in these procedures. The Cooperative will use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facility is owned or operated by the Cooperative, its subsidiaries or affiliates, or others.

## **6.8 Record Retention**

The Cooperative will maintain for three (3) years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

## **6.9 Coordination with Affected Systems**



The Cooperative will 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 the time frame specified in these procedures. The Cooperative will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Cooperative in all matters related to the conduct of studies and the determination of modifications to Affected Systems. An entity which may be an Affected System will cooperate with the Cooperative in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

## 6.10 Capacity of the Generating Facility

- 6.10.1. If the Interconnection Request is for a Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request will be evaluated on the basis of the aggregate capacity of the multiple devices, unless otherwise agreed to by the Cooperative and the Interconnection Customer.
- 6.10.2. The Interconnection Request will be evaluated using the maximum rated capacity of the Generating Facility, unless otherwise agreed to by the Cooperative and the Interconnection Customer.

## 6.11 Sale of a Generation Facility

- 6.11.1. The Interconnection Customer will notify the Cooperative of the pending sale of a proposed Generation Facility in writing. The Interconnection Customer will provide the Cooperative with information regarding whether the sale is a change of ownership of the Generation Facility to a new legal entity, or a change of control of the existing legal entity.

The Interconnection Customer will promptly notify the Cooperative of the final date of sale and transfer date of ownership in writing. The purchaser of the Generation Facility will confirm to the Cooperative the final date of sale and transfer date of ownership in writing, and submit an Interconnection Request requesting transfer control or change of ownership together with the change of ownership fee listed in Attachment 2.

- 6.11.2. Existing Interconnection Agreements are non-transferable. If the Generation 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

will not withhold or delay the execution of an Interconnection Agreement with the new owner provided the Generation facility or proposed Generation facility complies with requirements of 6.11.

- 6.11.3. The technical requirements in the Interconnection Agreement will 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 system has not been modified.

## **6.12 Isolating or Disconnecting the Generating Facility**

- 6.12.1. The Cooperative may isolate the Interconnection Customer'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 Customer'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.
- 6.12.2. Whenever feasible, the Cooperative will give the Interconnection Customer reasonable notice of the isolation of the Interconnection Customer's premises and/or Generating Facility from the Cooperative's System.
- 6.12.3. Notwithstanding any other provision of this Standard, 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 will have the right to isolate the Interconnection Customer's premises and/or Generating Facility from the Cooperative's System.
- 6.12.4. The Cooperative may disconnect from the Cooperative's System any Generating Facility determined to be malfunctioning, or not in compliance with this Standard. The Interconnection Customer must provide proof of compliance with this Standard before the Generating Facility will be reconnected.

## **6.13 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, will be limited to the amount of direct damage actually incurred. In no event will either Party be liable to the other Party for any indirect, special, incidental, consequential, or punitive damages of any kind.

## 6.14 Indemnification

The Interconnection Customer will at all times indemnify, defend and save the Cooperative, its members, directors, employees and agents 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 Interconnection Customer's action or inaction of its obligations hereunder.

## 6.15 Insurance

The Interconnection Customer will obtain and retain, for as long as the Generating Facility is interconnected with the Cooperative's System, liability insurance which protects the Interconnection Customer from claims for bodily injury and/or property damage. The amount of such insurance will 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 will be primary for all purposes. The Interconnection Customer will provide certificates evidencing this coverage as required by the Cooperative. Such insurance will be obtained from an insurance provider authorized to do business in North 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.

6.15.1. For an Interconnection Customer that is a residential customer of the Cooperative proposing to interconnect a Generating Facility no larger than 250 kW, the required coverage will be a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence.

6.15.2. For an Interconnection Customer that is a non-residential customer of the Cooperative proposing to interconnect a Generating Facility no larger than 250 kW, the required coverage will be comprehensive general liability insurance with coverage in the amount of at least \$300,000 per occurrence.

6.15.3. For an Interconnection Customer that is a non-residential customer

of the Cooperative proposing to interconnect a Generating Facility greater than 250 kW, the required coverage will be comprehensive general liability insurance with coverage in the amount of at least \$1,000,000 per occurrence.

#### **6.16 Disconnect Switch**

The Cooperative may require the interconnection Customer to install a manual load- break disconnect switch or safety switch as a clear visible indication of switch position between the Cooperative System and the interconnection Customer. The switch must have padlock 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 Customer'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 Customer and its associated load from the Cooperative's System or disconnect only the Generator from the Cooperative's System and will be accessible to the Cooperative at all times. The Cooperative, in its sole discretion, determines if the switch is suitable and necessary.

#### **6.17 Certification Codes and Standards**

Attachment 4 specifies codes and standards the Generating Facility must comply with.

#### **6.18 Certification of Generator Equipment Packages**

Attachment 5 specifies the certification requirements for the Generating Facility.

## ATTACHMENT 1

### Glossary of Terms

**20 kw Inverter Process** - The procedure for evaluating an Interconnection Request for a certified inverter-based Generating Facility no larger than 20 kw that uses the Section 3 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request Application Form, simplified procedures, and a brief set of Terms and Conditions. (See Attachment 6)

**Affected System** - An electric system other than the Cooperative's System that may be affected by the proposed interconnection. The owner of an Affected System might be a Party to the Interconnection Agreement or other study agreements needed to interconnect the Generating Facility.

**Applicable Laws and Regulations** - All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Auxiliary Load** – The term “Auxiliary Load” will mean power used to operate auxiliary equipment in the facility necessary for power generation (such as pumps, blowers, fuel preparation machinery, exciters, etc.)

**Business Day** - Monday through Friday, excluding State Holidays.

**Calendar Days** – Sunday through Saturday, including all holidays.

**Cooperative** - The entity that owns, controls, or operates facilities used for providing electric service in North Carolina.

**Commission** - The North Carolina Utilities Commission. It should be noted that the Commission does not have regulatory authority over Cooperatives regarding Interconnection Agreements, Procedures and Forms. The Cooperative is governed by its Board of Directors, which approves Cooperative policies, service rules, regulations, procedures, and rates.

**Default** - The failure of a breaching Party to cure its breach under the Interconnection Agreement.

**Detailed Estimated Interconnection Facilities Charge** - The estimated charge for Interconnection Facilities that is based on field visits and detailed engineering cost calculations and is presented in the Facility Study report and Final Interconnection Agreement. This charge is not final.

**Detailed Estimated Upgrade Charge** - The estimated charge for Upgrades that is based on field visits and detailed engineering cost calculations and is presented in the Facility Study report and Final Interconnection Agreement. This charge is not final.

**Distribution System** - The Cooperative's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** - The additions, modifications, and upgrades to the Cooperative's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the service necessary to allow the Generating Facility to operate in parallel with the Cooperative and to inject electricity onto the Cooperative's System. Distribution Upgrades do not include Interconnection Facilities.

**Fast Track Process** - The procedure for evaluating an Interconnection Request for a certified Generating Facility no larger than 2 MW that meets the eligibility requirements of Section 3.1, customer options meeting, and optional supplemental review.

**Final Interconnection Agreement** – The Interconnection Agreement that specifies the Detailed Estimated Upgrade Charges, Interconnection Facility Charge, mutually agreed upon Milestones, etc. and terminates and replaces the Interim Interconnection Agreement.

**Financial Security** – A letter of credit or other financial arrangement that is reasonably acceptable to the Cooperative and is consistent with the Uniform Commercial Code of North Carolina that is sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Cooperative's Interconnection Facilities and Upgrades. Where appropriate, the Cooperative may deem Financial Security to exist where its credit policies show that the financial risks involved are de minimus, or where the Cooperative's policies allow the acceptance of an alternative showing of credit-worthiness from the Interconnection Customer.

**Generating Facility** - The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but will not include the Interconnection Customer's Interconnection Facilities.

**Good Utility Practice** - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** - Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or

other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Cooperative, or any affiliate thereof.

**In-Service Date** – The date upon which the construction of the Cooperative’s facilities is completed and the facilities are capable of being placed into service.

**Interconnection Customer** - Any valid legal entity, including the Cooperative that proposes to interconnect its Generating Facility with the Cooperative’s System.

**Interconnection Facilities** – Collectively, the Cooperative's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Cooperative's System. Interconnection Facilities are sole use facilities and will not include Upgrades.

**Interconnection Facilities Delivery Date** – The Interconnection Facilities Delivery Date will be the date upon which the Cooperative’s Interconnection Facilities are first made operational for the purposes of receiving power from the Interconnection Customer.

**Interconnection Request** - The Interconnection Customer's request, in accordance with these procedures, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to, an existing Generating Facility that is interconnected with the Cooperative's System.

**Interdependent Customer (or Interdependent Project)** means an Interconnection Customer (or Project) whose Upgrade or Interconnection Facilities requirements are impacted by another Generating Facility, as determined by the Cooperative.

**Interim Interconnection Agreement** – The Interconnection Agreement that specifies the Preliminary Estimated Upgrade Charges, excludes Milestones, and must be cancelled and replaced with a Final Interconnection Agreement.

**“Material Modification”** means a modification to machine data or equipment configuration or to the interconnection site of the Generating Facility that has a material impact on the cost, timing or design of any Interconnection Facilities or Upgrades. Material Modifications include project revisions proposed at any time after receiving notification by the Cooperative of a complete Interconnection Request pursuant to Section 1.4.3 that 1) alters the size or output characteristics of the Generating Facility from its Cooperative-approved Interconnection Request submission; or 2) may adversely impact other Interdependent Interconnection Requests with higher Queue Numbers.

Indicia of a Material Modification, include, but are not limited to:

- A change in Point of Interconnection (POI) to a new location, unless the change in a POI is on the same circuit less than two (2) poles away from the original location, and the new POI is within the same protection zone as the original location;
- A change or replacement of generating equipment such as generator(s), inverter(s), transformers, relaying, controls, etc. that is not a like-kind substitution in size, ratings, impedances, efficiencies or capabilities of the equipment specified in the original or preceding Interconnection Request;
- A change from certified to non-certified devices (“certified” means certified by an OSHA recognized Nationally Recognized Test Laboratory (NRTL), to relevant UL and IEEE standards, authorized to perform tests to such standards);
- A change of transformer connection(s) or grounding from that originally proposed;
- A change to certified inverters with different specifications or different inverter control specifications or set-up than originally proposed;
- An increase of the AC output of a Generating Facility; or
- A change reducing the AC output of the generating facility by more than 10%.

The following are not indicia of a Material Modification:

- A change in ownership of a Generating Facility; the new owner, however, will be required to execute a new Interconnection Agreement and Study agreement(s) for any Study which has not been completed and the Report issued by the Cooperative.
- A change or replacement of generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. that is a like-kind substitution in size, ratings, impedances, efficiencies or capabilities of the equipment specified in the original or preceding Interconnection Request;
- An increase in the DC/AC ratio that does not increase the maximum AC output capability of the generating facility;
- A decrease in the DC/AC ratio that does not reduce the AC output capability of the generating facility by more than 10%.

**Month** – The term “Month” means the period intervening between readings for the purpose of routine billing, such readings usually being taken once per month.

**Nameplate Capacity** – The term “Nameplate Capacity” will mean the manufacturer’s nameplate rated output capability of the generator. For multi-unit generator facilities, the “Nameplate Capacity” of the facility will be the sum of the individual manufacturer’s nameplate rated output capabilities of the generators.



**Net Capacity** – The term “Net Capacity” will mean the Nameplate Capacity of the Customer’s generating facilities, less the portion of that capacity needed to serve the Generating Facility’s Auxiliary Load.

**Net Power** - The term "Net Power" will mean the total amount of electric power produced by the Customer's Generating Facility less the portion of that power used to supply the Generating Facility’s Auxiliary Load.

**Network Upgrades** - Additions, modifications, and upgrades to the Cooperative's System required to accommodate the interconnection of the Generating Facility to the Cooperative's System. Network Upgrades do not include Distribution Upgrades.

**Operating Requirements** - Any operating and technical requirements that may be applicable due to Regional Reliability Organization, Independent System Operator, control area, or the Cooperative's requirements, including those set forth in the Interconnection Agreement.

**Party or Parties** - The Cooperative, Interconnection Customer, and possibly the owner of an Affected System, or any combination of the above.

**Point of Interconnection** - The point where the Interconnection Facilities connect with the Cooperative's System.

**Preliminary Estimated Interconnection Facilities Charge** - The estimated charge for Interconnection Facilities that is developed using unit costs and is presented in the System Impact Study report and Interim Interconnection Agreement. This charge is not based on field visits and detailed engineering cost calculations.

**Preliminary Estimated Upgrade Charge** - The estimated charge for Upgrades that is developed using unit costs and is presented in the System Impact Study report and Interim Interconnection Agreement. This charge is not based on field visits and detailed engineering cost calculations.

**Project A** - An Interconnection Customer that submitted its Interconnection Request before Interdependent Project B.

**Project B** - An Interconnection Customer that submitted its Interconnection Request after Interdependent Project A.

**Queue Number** – The number assigned by the Cooperative that establishes a Customer’s Interconnection Request’s position in the study queue relative to all other valid Interconnection Requests. A lower Queue Number will be studied prior to a higher Queue Number, except in the case of Interdependent Projects Queue Number of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection.

**Queue Position** - The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, based on Queue Number.

**Reasonable Efforts** - With respect to an action required to be attempted or taken by a Party under the Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Study Process** - The procedure for evaluating an Interconnection Request that includes the Section 4 scoping meeting, system impact study, and facilities study.

**System** - The facilities owned, controlled or operated by the Cooperative that are used to provide electric service in North Carolina.

**Upgrades** - The required additions and modifications to the Cooperative's System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

## **Attachment 4**

### **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

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

OSHA 1910.269 (d), Hazardous energy control (lockout/tagout) procedures

OSHA 1910.269 (m), Deenergizing lines and equipment for employee protection

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 5**

### **Certification of Generator Equipment Packages**

- 1.0 Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system will 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 Attachment 4, (2) it has been labeled and is publicly listed by such NRTL at the time of the Interconnection Request, 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 Customer 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 will not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein will 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 Customer 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 Interconnection Customer's side of the point of common coupling will be required to meet the requirements of these Interconnection Procedures.
- 6.0 An equipment package does not include equipment provided by the Cooperative.

|

**Interconnection Request Application Form for Interconnecting a Certified Inverter-Based Generating Facility No Larger than 20 kw**

This Interconnection Request Application Form 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 \$100 must accompany this Interconnection Request Application Form.

If the Interconnection Request is submitted solely due to a transfer of ownership of the Generating Facility, the fee is \$50.

**Interconnection Customer**

Name: Cheryl Carmona

Contact Person: \_\_\_\_\_

E-Mail Address: ccarmona0428@gmail.com

Address: 30 Salisbury Lane

City: Spring Lake State: NC Zip: 28390

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

Telephone (Day): (910) 710-4697 (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_

**Contact** (if different from Interconnection Customer)

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

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_

Owner(s) of the Generating Facility: \_\_\_\_\_

**Generating Facility Information**

Facility Location (if different from above):

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

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

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

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

Account Number: 329041

Inverter Manufacturer: Enphase Energy Model IQ7PLUS-72-2-US

Nameplate Rating: 290 (kW) 4.5 (kVA) 3.480 (AC Volts)

System Design Capacity: 375 (kW) 4.5 (kVA)

Single Phase x 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 x

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

Estimated Installation Date: tbd Estimated In-Service Date: tbd

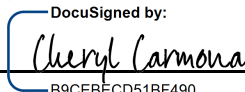
The 20 kw Inverter Process is available only for inverter-based Generating Facilities no larger than 20 kw that meet the codes, standards, and certification requirements of Attachments 4 and 5 of these Interconnection Procedures, or the Cooperative has reviewed the design or tested the proposed Generating 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 Customer Signature**

I hereby certify that, to the best of my knowledge, the information provided in this Interconnection Request Application Form is true. I agree to abide by the 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:**  \_\_\_\_\_  
B9CEBEC51BF490...

Title: member Date: 10/21/2021

**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 x

**Interconnection Customer**

Name: Cheryl Carmona

Contact Person: \_\_\_\_\_

E-Mail Address: ccarmona0428@gmail.com

Address: 30 Salisbury Lane

City: Spring Lake State: NC Zip: 28390

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

Telephone (Day): (910) 710-4697 (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_

Location of the Generating Facility (if different from above)

Address \_\_\_\_\_

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

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

**Electrician**

Name: Sunpro Solar

Contact Person: Taylor Stewart

E-Mail Address: taylorstewart@theprocompanies.com

Address: 295 Maltbie St

City: Lawrenceville State: Ga Zip: 30046

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

Telephone (Day): 985-334-6250 (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_

License Number: PV-020518-015221

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

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

**Inspection:**

The Generating Facility has been installed and inspected in compliance with the local building/electrical code of \_\_\_\_\_

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 (insert Cooperative information below):

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

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

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

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

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

Fax: \_\_\_\_\_

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

**Terms and Conditions  
for Interconnecting a Certified Inverter-Based Generating Facility No Larger  
than 20 kw**

**1.0 Construction of the Facility**

The Interconnection Customer (Customer) may proceed to construct (including operational testing not to exceed two hours) the Generating Facility when the Cooperative approves the Interconnection Request and returns it to the Customer.

**2.0 Interconnection and Operation**

The Customer may interconnect the Generating Facility with the Cooperative's System and operate in parallel with the Cooperative's System once all of the following have occurred:

- 2.1. Upon completing construction, the Customer will cause the Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2. The Customer returns the Certificate of Completion to the Cooperative, and
- 2.3. The Cooperative has either:
  - 2.3.1. Completed its inspection of the Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Cooperative, at its own expense, within a reasonable period after receipt of the Certificate of Completion and will take place at a time agreeable to the Parties. The Cooperative will provide a written statement that the Generating Facility has passed inspection or will notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or
  - 2.3.2. The Cooperative waives the right to inspect the Generating Facility.

- 2.4. The Cooperative has the right to disconnect the Generating Facility in the event of improper installation or failure to return the Certificate of Completion.
- 2.5. Revenue quality metering equipment must be installed and tested in accordance with applicable American National Standards Institute (ANSI) standards and all applicable regulatory requirements.

### 3.0 **Safe Operations and Maintenance**

The Customer will be fully responsible to operate, maintain, and repair the Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

### 4.0 **Access**

The Cooperative will have access to the disconnect switch (if a disconnect switch is required) and metering equipment of the Generating Facility at all times. The Cooperative will provide reasonable notice to the Customer, when possible, prior to using its right of access.

### 5.0 **Disconnection**

The Cooperative may temporarily disconnect the Generating Facility upon the following conditions:

- 5.1 For scheduled outages upon reasonable notice.
- 5.2 For unscheduled outages or emergency conditions.
- 5.3 If the Generating Facility does not operate in a manner consistent with these Terms and Conditions.
- 5.4 The Cooperative will inform the Customer in advance of any scheduled disconnection, or as soon as is reasonable after an unscheduled disconnection.

### 6.0 **Indemnification**

The Interconnection Customer will at all times indemnify, defend, and save the Cooperative, its members, directors, employees and agents harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the Interconnection Customer's action or inactions of its obligations hereunder.

## 7.0 **Insurance**

All insurance policies must be maintained with insurers authorized to do business in North Carolina. The Parties agree to the following insurance requirements:

7.1 If the Customer is a residential customer of the Cooperative, the required coverage will be a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence.

7.2 For an Interconnection Customer that is a non-residential customer of the Cooperative proposing to interconnect a Generating Facility no larger than 250 kW, the required coverage will be comprehensive general liability insurance with coverage in the amount of at least \$300,000 per occurrence.

## 8.0 **Limitation of Liability**

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

## 9.0 **Termination**

The agreement to interconnect and operate in parallel may be terminated under the following conditions:

### 9.1 **By the Customer**

By providing written notice to the Cooperative and physically and permanently disconnecting the Generating Facility.

9.2 By the Cooperative

If the Generating Facility fails to operate for any consecutive 12-month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection

In the event this Agreement is terminated, the Cooperative will have the right to disconnect its facilities or direct the Customer to disconnect its Generating Facility.

9.4 Survival Rights

This Agreement will continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

**10.0 Assignment/Transfer of Ownership of the Facility**

10.1 This Agreement will not survive the transfer of ownership of the Generating Facility to a new owner.

10.2 The new owner must complete and submit a new Interconnection Request agreeing to abide by these Terms and Conditions for interconnection and parallel operations within 20 Business Days of the transfer of ownership. The Cooperative will then acknowledge receipt and return a signed copy of the Interconnection Request Application Form.

10.3 The Cooperative will not study or inspect the Generating Facility unless the new owner's Interconnection Request Application Form indicates that a Material Modification has occurred or is proposed.