

**From: Chief Operating Officer**

**To: Engineering Policy Bulletin File**

**Subject: Interconnection of Distributed Resources**

In compliance with RUS 1730 "Electric System Operations and Maintenance," Part C, this document is to serve as Pee Dee Electric's policy for Interconnection of Distributed Resources (IDR).

This IDR policy is to be made available to the public upon request. Furthermore, all departments likely to be questioned by the public regarding interconnection (namely, Marketing, Engineering, and Member Services) will be provided with copies of this policy as well as instructions for explaining this to the public.

This policy is meant to cover all sources of generation and energy storage technologies up to 20 megavolt-amperes (MVA) measured at the point of common coupling (PCC) that would be connected to Pee Dee Electric's electric power system (EPS). However, such resources will be divided into two categories:

**Interconnection of Distributed Resources less than 2000 kVA at PCC:**

Members wishing to connect loads of this size will be given a copy of the Standard for Interconnecting Distributed Resources less than 2MVA (attached to and made part of this policy). The application included in this Standard may be submitted to Pee Dee Electric along with the appropriate application fee (\$100 for residential members, \$250 for non-residential as listed in Section 4.12 of the aforementioned Standard). Once this application process is complete, PDEC's Engineering Department will determine how best to interconnect with the member and will give the member suitable rate options.

**Interconnection of Distributed Resources at least 2000 kVA (but no more than 20MVA) at PCC:**

In lieu of a standard application process (as in the smaller section above) members wishing to connect loads of this size must submit a proposal to Pee Dee Electric's Engineering Department for consideration. Each proposal will be handled on a case-by-case basis including the design of the interconnection, disconnect facilities (including a locking disconnect and visible opening), and protection infrastructure and well as the structure of the rate established between Pee Dee Electric, the member, and the wholesale power provider.

This proposal must include the following:

1. Non-refundable application fee of \$1000 payable to PDEC.
2. A summary of the function of the generating source(s).
3. Complete listing of all nameplate information including, but not limited to, voltage, horsepower, hours of operation, and maximum current output.
4. A complete set of drawings certified by a professional engineer licensed in South Carolina showing the operation of these distributed resources as well as the proposed means of interconnection with the EPS.
5. Proof that proposed resources and interconnections meet Standards 1547 and 1547.1 of the Institute of Electrical and Electronic Engineers (IEEE). These standards cover interconnecting distributed resources with EPSs and conformance test procedures for such resources.
6. Certification that PDEC will be granted access to the distributed resources (DR) facility during normal business hours and all emergency situations.
7. Certificate of liability insurance in the amount of \$1,000,000.

8. Certification that applicant will be responsible for compliance of the DR (up to the applicant's side of the PCC) with all national, state, and local government requirements for the safety of the public and the personnel responsible for utility electric power system operations, maintenance, and repair.
9. Certification that the applicant will be responsible for the safe and effective operation and maintenance of the DR facility (up to the applicant's side of the PCC). Note: Only Responsible Parties may apply for interconnection and the Responsible Party must demonstrate that the facility will be capably developed, constructed and operated, maintained, and repaired.

Costs recovered from applicant are to be explained fully in each case. In no case is Pee Dee Electric to incur any costs before the appropriate fee is recovered from the applicant. For example, if a member applies to connect a 2MW generating source to Pee Dee Electric's EPS, PDEC must collect \$1000 from the applicant before an interconnection study is performed. Furthermore, if this study shows that \$25,000 of infrastructure must be installed by PDEC for this interconnection, this \$25,000 is to be recovered from the applicant before any infrastructure is purchased or installed.

In the interest of making sure this policy is kept up to date, this policy, in its current form, is effective until a revision is approved or for a period of five (5) years from the date of this policy – whichever is less.

## Exhibit 2

# Standard for Interconnecting Distributed Resources Less Than 2 MVA with Electric Power Systems (EPS) (Interconnection Standard)

## 1. Overview:

This Standard contains the requirements, in addition to applicable tariffs and service regulations, for parallel interconnection of non-utility owned small generation systems and energy storage technologies which are rated less than 2 MVA (Distributed Resources).

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

### 1.1 **Scope:**

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

### 1.2 **Purpose:**

This document is developed to provide a simplified standard for interconnecting certain Distributed Resources of less than 2 MW capacity.

### 1.3 **Limitations:**

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

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

### 1.4 **Conflicts:**

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

## 2. References:

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

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

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

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

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

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

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

### 3. **Definitions:**

- 3.1 **Area EPS:** Area Electric Power System: The electric facilities of the local utility.
- 3.2 **Company:** The electric utility owning and operating the Area EPS.
- 3.3 **Closed Transition of Loads:** A make-before-break load transfer scheme, in which the Distributed Resource is operated in parallel with the Area EPS for a brief period of time, to ensure that the load is maintained while in transition from the Company to the Distributed Resource or vice versa. This transition scheme includes fast transfer systems, generally less than 100 msec, and soft load systems where the parallel condition is maintained for a number of seconds.
- 3.4 **Customer:** The electric Customer of record for the location where the generation will be interconnected.
- 3.5 **Distributed Resource:** A source of power not directly connected to the bulk power transmission system connected to the Company's EPS. This includes both generators and energy storage technologies.
- 3.6 **Isolation Device:** A manual load-break disconnect switch or safety switch with a clear visible indication of switch position between the Area EPS and the Distributed Resource. The switch must have pad lock provisions for locking in the open position. The switch must be visible to, and accessible to Company personnel. The switch must be in close proximity, and visible from, the Customer's point of electrical interconnection with the Company's Area EPS. The switch must be labeled "Generator Disconnect Switch". The switch may isolate

the Distributed Resource system and its associated load from the area EPS or disconnect only the Distributed Resource from the Area EPS.

The Company shall have access to the Isolation Device at all times.

3.7 **Momentary Parallel Systems:** A Distributed Resource utilizing only a Closed Transition mode of operation.

3.8 **Point of Common Coupling:** "Point of common coupling" means the point in the interconnection of a Distributed Resource facility with an electric delivery system and shall have the same meaning as in IEEE Standard 1547.

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

4.1 **Service Regulations and Tariff/Rate Schedule:** This Standard for Interconnecting Small Distributed Resources Less Than 2 MVA with Electric Power Systems is governed by the Company's Service Regulations and Tariff/Rate Schedules.

4.2 **Acceptance for Interconnection:** Each application and Distributed Resource is evaluated individually and accepted or denied for interconnection with the Company's Area EPS. Any Company evaluation is from the perspective of the impact of the interconnection on the Company and its system. The Customer is solely responsible for ensuring the safe installation and operation of the Distributed Resource. Distributed Resources shall not be interconnected until the requirements and process described in this Standard have been satisfied.

The acceptance for interconnection is for the original applicant only. Subsequent owners or occupants of a site with an interconnected Distributed Resource must submit a new Application to the Company. The existing customer assumes the responsibility of ensuring a new customer is aware the new customer must re-apply and obtain the Company's written acceptance or the equipment must be removed or disabled to prevent future interconnection and/or operation. The application fee for the re-applying new customer is waived and the technical requirements may be grandfathered for subsequent owners as long as the Distributed Resource's maximum output capacity has not been changed and/or the interconnection protection system has not been modified.

4.3 **Waiving Requirements:** All requirements of this Standard must be met although the Company may, in its sole discretion, waive all or some of the requirements of this Standard. Waivers must be issued in writing.

4.4 **Interconnect Cost:** The Customer will bear all the cost of interconnection on the Customer's side of the point of interconnection as well as necessary changes or

upgrades to the Area EPS to meet all technical and protection requirements to address any power quality, reliability or safety issues caused by the Distributed Resource operation or connection to the Area EPS.

- 4.5 **Isolating or Disconnecting the Distributed Resource:** The Company may isolate the Customer's premises and/or Distributed Resource from Company's Area EPS when necessary in order to construct, install, repair, replace, remove, investigate, or inspect any of Company's equipment or part of Company's system; or if Company determines that isolation of the Customer's premises and/or Distributed Resource from Company's Area EPS is necessary because of emergencies, forced outages, force majeure or compliance with prudent electrical practices. Whenever feasible, the Company shall give the Customer reasonable notice of the isolation of the Customer's premises and/or Distributed Resource from Company's Area EPS. Notwithstanding any other provision of this Standard, if at any time the Company determines that either the Distributed Resource may endanger the Company's personnel or other persons or property, or the continued operation of the Customer's Distributed Resource may endanger the integrity or safety of the Company's electric system, the Company shall have the right to isolate the Customer's premises and/or Distributed Resource from the Company's Area EPS.

The Company may disconnect the Area EPS electric service to any Distributed Resource determined to be malfunctioning, or not in compliance with this Standard. The Customer must provide proof of compliance with this Standard before the electrical service will be reconnected.

- 4.6 **Limitation of Liability:** Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission hereunder, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, special, incidental, consequential, or punitive damages of any kind.
- 4.7 **Indemnification:** The parties shall at all times indemnify, defend and save the other party harmless from any and all damages, losses, claims, including claims and actions relating to injury or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney's fees, and all other obligations by or to third parties, arising out of or resulting from the other party's action or inaction of its obligations hereunder on behalf of the indemnifying party, except in cases of gross negligence or intentional wrongdoing by the indemnified party.
- 4.8 **Access to and Operation of the Distributed Resource:** The Customer shall limit access to and operation of the Distributed Resource to qualified persons and assumes the responsibility of maintaining control of the operation of the Distributed Resource.

- 4.9 **Insurance:** The Customer shall obtain and retain, for as long as its Distributed Resource is interconnected with the Company's system, liability insurance which protects the Customer from claims for bodily injury and/or property damage. For a non-residential Customer the minimum coverage shall be comprehensive general liability insurance with coverage at least \$600,000 per occurrence and for a residential Customer the minimum coverage shall be at a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence. This insurance shall be primary for all purposes. The Customer shall provide certificates evidencing this coverage as required by the Company. The Company reserves the right to refuse to establish, or continue the interconnection of the Customer's Distributed Resource with the Company's system, if such insurance is not in effect.
- 4.10 **Distributed Resource Alterations:** Changes to the Distributed Resource output capacity and/or modification to the protection system required to meet this Standard are prohibited without submitting a new Application and obtaining a new acceptance from Company.
- 4.11 **Discontinuing Operation:** The Customer shall notify the Company prior to permanently discontinuing operation of the Distributed Resource interconnected with the Company.
- 4.12 **Interconnection Application Fee:** The nonrefundable interconnection application fee covers only the application process for interconnection of Distributed Resource and shall be one of the following:
- 4.12.1. For residential service customers: \$100.00
- 4.12.2. For nonresidential service customers: \$250.00

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

- 5.1 **General:** The Company may elect to visit the site and verify compliance with any requirement of these Standards.
- 5.2 **Required Standards:** The Customer must certify the following requirements:
- 5.2.1. The installation of the Distributed Resource and all equipment in the system must comply with the latest published edition of IEEE 929 and IEEE 1547 as applicable.

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

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

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

5.2.5. The Customer's inverter or interconnection protection system must be manufactured after November 7, 2000.

5.2.6. Any protection settings affecting anti-islanding performance must not be adjusted after passing anti-islanding tests.

5.3 **Additional PV (Photovoltaic) Systems requirements:** The Customer must certify that the Distributed Resource meets the following requirements:

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

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

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

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

## **6. Screens and Requirements for determination of minimal impact:**

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

6.2 **Limitations of Area EPS Facilities:**

- 6.2.1. **General:** The Distributed Resource shall meet each of the following requirements to qualify for interconnection and each requirement must be maintained after commissioning.
- 6.2.2. **Area EPS Capacity Limitation:** The maximum rated output of the Distributed Resource or total aggregate of multiple Distributed Resources shall not exceed the capacity or ratings of the Area EPS facilities as determined by the company.
- 6.2.3. **Secondary, Service and Service Entrance Limitation:** The Distributed Resource capacity shall be less than the capacity of the Area EPS owned secondary, service and service entrance cable connected to the Point of Common Coupling. The Company will make this determination after reviewing the Area EPS installed facilities.
- 6.2.4. **Transformer Loading Limitation:** The Distributed Resource shall not have the ability to overload the Area EPS transformer or any EPS transformer winding beyond manufacturer or nameplate ratings.
- 6.2.5. **Integration with Area EPS Grounding:** The grounding scheme of the Distributed Resource shall comply with IEEE 1547.
- 6.2.6. **Balance Limitation:** The Distributed Resource shall not create a voltage imbalance of more than 3% if the Area EPS transformer, with the secondary connected to the Point of Common Coupling, is a three-phase transformer.
- 6.2.7. Any changes or upgrades to Area EPS to accommodate the Distributed Resource will be pursuant to Section 4.4 above.

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

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

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

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

- 7.2 **Commissioning:** The manufacturer's recommended and required commissioning, installation and functional tests shall be completed, with successful results, in accordance with the manufacturer's published recommendations. Commissioning tests in IEEE 1547 shall also be completed with successful results unless these IEEE 1547 tests are duplications of the manufacturer tests. After obtaining the final electrical inspection, the Customer shall invite the Company to the commissioning test and perform the test at a mutually agreed date but not later than 25 days after the invitation.
- 7.3 **Maintenance and Testing:** Maintenance shall be performed in accordance with the manufacturer's published maintenance procedures. Periodic testing shall be completed with successful results in accordance with the manufacturer's published recommendations for periodic testing at, or before, the recommended testing intervals. If the manufacturer does not publish recommendations for periodic testing, suitable testing shall be performed that assures proper protection for the Area EPS, at an interval not to exceed two years. All test results shall be documented and available to the Company for review upon request.
- 7.4 **Failure of Test:** If a Distributed Resource fails any test, it shall be disabled and the Isolation Device must be opened until the equipment is repaired.

## **8. Procedures**

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

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

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

- 8.4 **Agreement for Interconnection:** After all previous items in the process are complete, the Company will provide an agreement to the Customer within 10 days of the completion of the Impact Screens as stated in 8.3. Once the Customer returns the executed Agreement to the Company, the Company will execute the Agreement and return a copy to the Customer. Customer shall not interconnect the Distributed Resource to Company's Area EPS Facilities unless an Agreement between Customer and Company has been executed by both parties.
- 8.5 **Installation and Inspections:** The Customer installs the Distributed Resource and the Customer is responsible for obtaining an approved electrical inspection from the local authority having jurisdiction for the Distributed Resource installation. The Customer shall request the inspector to forward a copy of the approved inspection to the Company contact processing the Distributed Resource interconnect request.
- 8.6 **Area EPS Facilities:** At the Customer's expense the Company installs or alters the Area EPS facilities as necessary to accommodate the interconnection.
- 8.7 **Commissioning Test:** The Customer performs the required commissioning test and forwards a confirmation letter to the Company unless the Company witnesses the test and it is successful. The Customer shall invite the Company to the commissioning test and perform the test at a mutually agreed date and time if the Company elects to attend.
- 8.8 **Completion of Application/Expiration Process:** The application shall be valid for no less than one year once the Impact Screen process is completed.

**Exhibit 1**

**APPLICATION TO INTERCONNECT DISTRIBUTED RESOURCE LESS THAN 2 MVA**

Customer hereby gives notice of intent to operate an interconnected Distributed Resource facility pursuant to the "Standard for Interconnecting Distributed Generation less than 2 MVA with Electric Power Systems (Interconnection Standard)". Permission to interconnect is not granted until an Interconnection Agreement has been completed between the Company and the Customer.

**Section 1. Contact Information**

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

US Mail Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Daytime Phone Number: \_\_\_\_\_ Alternate Phone / Cell Number \_\_\_\_\_

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**Installer** (Name): \_\_\_\_\_ Date: \_\_\_\_\_ Phone Number: \_\_\_\_\_

US Mail Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Company: \_\_\_\_\_ Electrical / Contractor license number(s) \_\_\_\_\_

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

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

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

Electric Utility Name: \_\_\_Pee Dee Electric Cooperative, Inc\_\_\_\_\_ Account Number: \_\_\_\_\_

Customer Type: Residential , Commercial , Other \_\_\_\_\_

Is there an existing interconnected Distributed Resource at this facility? Yes , No

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

Distributed Resource / Inverter	# 1	# 2	# 3
Energy Source / Type	_____	_____	_____
Manufacturer Name	_____	_____	_____
Model Name & # (Specific)	_____	_____	_____
Nameplate Rating (kW AC)	_____	_____	_____
Nominal Voltage (Volts AC)	_____	_____	_____

(Note: If more than 3 Distributed Resources / Inverters will be used, complete a separate attachment with the information above)

If a customer owned transformer will be used, specify Mfg, type and ratings: \_\_\_\_\_  
(Attach Transformer Manufacturer Specifications)

**Section 3. Installation Information**

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

**Section 4. Certification**

The interconnection protection system is tested and listed for compliance with the latest published edition of Underwriters Laboratories (UL) 1741 including the anti-islanding test. The system (is / will) be installed in compliance with IEEE 929 and or IEEE 1547 as applicable, all manufacturer specifications, the National Electric Code and all local codes. No protection settings affecting anti-islanding have been or will be adjusted or modified; and the anti-islanding device cannot be disabled or bypassed.

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

**Signature of Customer** \_\_\_\_\_ Date: \_\_\_\_\_

Note: Attach application fee and 1-line (electrical drawing of installation) with application.

Submit Application to: (Utility Representative) \_\_\_\_\_ Engineering Department \_\_\_\_\_

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Company (Electric Utility Use only): Note: Only signifies receipt of this form.

This application received by Pee Dee Electric Cooperative, Inc.

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

### Exhibit 3

## INTERCONNECTION AGREEMENT FOR DISTRIBUTED RESOURCES LESS THAN 2 MVA

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This INTERCONNECTION AGREEMENT FOR DISTRIBUTED RESOURCE LESS THAN 2 MVA, (the "Agreement"), is entered into as of \_\_\_\_\_, 20\_\_, (the "Effective Date"), by and between \_\_\_\_\_, hereinafter called "Customer", and Pee Dee Electric Cooperative, Inc., hereinafter called "Company". Customer and Company are hereinafter collectively referred to as the "Parties" or "Party". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

### 1. SCOPE OF AGREEMENT:

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

### 2. INTERCONNECTION:

- (a) Company hereby authorizes Customer to interconnect and commence operation under the terms of this Agreement on or after \_\_\_\_\_ (*date*) subject to Customer having received Company's written acceptance specified in 2. (f) below.
- (b) Customer's Distributed Resource must be manufactured, installed and operated in accordance with governmental and industry standards and must conform with Company's "Standard for Interconnecting Distributed Resources less than 2 MVA with Electric Power Systems (EPS)", hereinafter referred to as "Interconnection Standard", a copy being attached hereto and made a part of this Agreement.
- (c) Customer's Distributed Resource shall be installed as described in Customer's Application To Interconnect Distributed Resources Less than 2 MVA, a copy attached hereto and made a part hereof.
- (d) The nameplate output of the Distributed Resource is \_\_\_\_ kW in the form of \_\_\_\_\_ phase, \_\_\_\_\_ wires, alternating current of 60 hertz frequency and at \_\_\_\_\_ volts.
- (e) The point of interconnection between Customer and Company hereunder will be \_\_\_\_\_.
- (f) Customer shall not interconnect Customer's Distributed Resource with Company's electric system nor commence parallel operation of Customer's Distributed Resource until both Parties have accepted this Agreement and the requirements for interconnection stated in the Interconnection Standard have been met. Company shall have the right and opportunity to have representatives present at the initial testing of Customer's protective apparatus. Customer shall notify Company \_\_\_\_5\_\_ business days prior to the initial testing. In the event Customer has interconnected Customer's Distributed Resource without Company's acceptance of this Agreement or the Distributed Resource has not met the requirements of the Interconnection Standard, Company shall

have the right to immediately isolate Customer's premises and/or Distributed Resource from Company's system until Company's acceptance is granted and the requirements of the Interconnection Standard have been met.

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

**3. INTERCONNECTION COST:** The cost to Customer for all Company owned and maintained facilities constructed and/or installed by Company to accommodate the interconnection and safe operation of Customer's Distributed Resource in parallel with Company's electric system shall be determined in accordance with Company's applicable Service Regulations and/or Terms and Conditions. The cost to Customer, termination provisions, and other applicable terms and conditions related to facilities installed by Company are as stated in Exhibit 4, hereto attached and made a part hereof.

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

- (a) **Access To Premises:** The duly authorized agents of Company shall have the right of ingress and egress to the premises of Customer at all reasonable hours, over the same general route as Customer utilizes, for the purpose of reading meters, inspecting Company's wiring and apparatus, changing, exchanging, or repairing its property on the premises of Customer and to remove such property at the time of or at any time after the suspension of interconnection of the Distributed Resource or termination of this Agreement. Company shall have access to Customer's Isolation Device at all times.
- (b) Company's obligation to provide the interconnection as covered in this Agreement on the agreed upon Effective Date is contingent upon Company receiving the rights-of-way and receiving the necessary equipment in sufficient time to install it on or before that date.

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

**6. DISCONNECTION OF DISTRIBUTED RESOURCE:** Company may isolate Customer's premises and/or Distributed Resource from Company's system when necessary in order to construct, install, repair, replace, remove, investigate, or inspect any of Company's equipment or part of Company's system; or if Company determines that isolation of Customer's premises and/or Distributed Resource from Company's system is necessary because of emergencies, forced outages, Force Majeure or

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

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

8. **INDEMNITY AND LIABILITY:**

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

9. **INSURANCE:**

- (a) Customer shall obtain and retain, for as long as its Distributed Resource is interconnected with the Company's system, liability insurance which protects Customer from claims for bodily injury and/or

property damage. For a non-residential Customer the minimum coverage shall be comprehensive general liability insurance with coverage at least \$600,000 per occurrence and for a residential Customer the minimum coverage shall be at a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence. Prior to interconnection of the Distributed Resource with Company's system, Customer shall furnish a properly executed certificate of insurance to Company clearly evidencing the required coverage and any exclusions applicable to such coverage. The certificate shall provide that the insurance coverage shall not be canceled or modified unless and until Company receives at least thirty (30) days prior written notice. Customer shall further replace such certificates for policies expiring during the period its Distributed Resource is interconnected with Company's system. Company has the right to refuse to establish or continue the interconnection of Customer's Distributed Resource to Company's system if such insurance is not in effect.

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

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

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

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

(a) If Customer desires to terminate the Agreement, Company will agree to such termination if Company is satisfied that Customer no longer can operate Customer's Distributed Resource in parallel with Company's system at the premises and all bills for services previously rendered to Customer, plus any applicable termination charges as specified in Exhibit \_\_4\_\_, have been paid. Company may waive the termination charges if Company has secured or expects to secure from a new occupant or operator of the premises an Agreement satisfactory to Company for the interconnection to Company for a term not less than the unexpired portion of Customer's Agreement.

(b) Company, in addition to all other legal remedies, may either terminate the Agreement or suspend interconnection with Customer (1) for any default or breach of Agreement by Customer, (2) for failure to pay any applicable bills when due and payable, (3) for a condition on Customer's side of the point of interconnection actually known by Company to be, or which Company reasonably anticipates may be, dangerous to life or property, (4) if Customer either fails to energize the Distributed Resource within 12 months of the Effective Date of this Agreement or permanently abandons the Distributed Resource, or (5) by giving the Customer at least sixty days notice in the event that there is a material change in an applicable rule or statute concerning interconnection and parallel operation of the Distributed Resource, unless the Customer's installation is exempted from the change or the Customer complies with the change in a timely manner. No such termination or suspension, however, will be made by Company without written notice delivered to Customer,

personally or by mail, stating what in particular in the Agreement has been violated, except that no notice need to be given in instances set forth in 12.(b)(3) above. Failure to operate the Distributed Resource for any consecutive 12 month period after the Effective Date shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.

**13. GENERAL:**

- (a) This Agreement and the applicable Schedule, Riders, Interconnection Standard, Service Regulations, and Terms and Conditions hereto attached are subject to changes or substitutions, either in whole or in part, made from time to time by the Board of Trustees of the Cooperative. Unless specified otherwise, any such changes or substitutions shall become effective immediately and shall nullify all prior provisions in conflict therewith.
- (b) **Headings:** The descriptive headings of the various sections of this Agreement have been inserted for convenience of reference only and are to be afforded no significance in the interpretation or construction of this Agreement.

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

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

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

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

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

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

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

**21. CUSTOMER CERTIFICATION:** By signing this Agreement below, Customer hereby certifies that, to the best of Customer's knowledge, all of the information provided in the Application To Interconnect Distributed Resources Less than 2 MVA is true and correct, the Distributed Resource will comply with

the Interconnection Standard, and that Customer has received and reviewed this Agreement.

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

**Witness as to Customer**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Customer  
By \_\_\_\_\_ Title \_\_\_\_\_  
This \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

**Accepted: Pee Dee Electric Cooperative, Inc.**

By: \_\_\_\_\_ Address of Customer  
Title \_\_\_\_\_ Name: \_\_\_\_\_  
This \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_ Address: \_\_\_\_\_  
\_\_\_\_\_

**EXHIBITS AND ATTACHMENTS**

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