

TAYLOR ELECTRIC COOPERATIVE, INC.

Distributed Generation Procedures & Guidelines Manual for Members

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GENERAL

In order to receive service from the Cooperative, a customer must join or become a "Member" of Taylor Electric Cooperative, Inc. Throughout this manual, customers will be referred to as "Members." For more information about the cooperative membership application process, including any applicable membership fees or deposits, see the Cooperative to request new member information.

It is the intent of the Cooperative to allow Members to install qualifying Distributed Generation (DG), provided the Member's DG facility does not adversely affect the Cooperative, and meets the requirements of I. 6) "Size Requirements" in this document. The Member must conduct his/her own analysis to determine the economic benefit of DG operation.

A DG facility that is not connected to the Cooperative's system in any way is known as "stand-alone" or "isolated" DG. The Member may operate a DG facility in stand-alone or isolated fashion as long as such DG facility does not adversely affect the Cooperative's system. A DG facility connected in any way to the Cooperative's system shall be considered as in "parallel." For purposes of this Manual, a DG facility is considered operating in "parallel" anytime it is connected to the Cooperative's system in any way, even if the Member does not intend to export power. All provisions of this Manual shall apply to parallel operation of DG facilities as so defined.

This Manual is not a complete description or listing of all laws, ordinances, rules and regulations, nor is this Manual intended to be an installation or safety manual. The Member requesting to interconnect a DG facility to the Cooperative's system is responsible for and must follow, the provisions of section V. 6) "Applicable Regulations" prior to, and for the duration of, interconnection of the DG facility to the Cooperative's system.

A Member may serve all load behind the meter at the location serving the DG facility but will not be allowed to serve multiple meters, multiple consuming facilities or multiple Members with a single DG facility or under a single DG application without prior approval by the cooperative.

DG facilities larger than 250 kW and facilities rated to produce an amount of electricity greater than the amount of electricity the Member for whom the DG is installed is reasonably expected to consume are not covered by this Manual and will be considered by the Cooperative on a non-discriminatory case-by-case basis.

I. DETERMINE THE CATEGORY OF DISTRIBUTED GENERATION FACILITY

1) Connection Level Category

- a) Connected to the Cooperative's system
The Member requests and/or the Member's DG facility requires connection to the Member-Consumer's side of the Cooperative's meter (no connection to the Cooperative's distribution facilities is permitted). All provisions of this manual cover this category.
- b) Connected to the Cooperative's Power Supplier's system
The Member requests and/or the Member's DG facility requires connection to the Cooperative's Power Supplier's system. This manual does NOT cover this category. The Member should contact the Cooperative's Power Supplier directly.

2) Contact Persons

- a) The Cooperative's contact person for all matters related to DG interconnection shall be:
Name: Brad Robinson
Address: 226 Cr 287
Merkel, TX 79536
Phone: 325-793-8500
Email: brad.robinson@tayloelectric.coop
- b) The Cooperative's Power Supplier's contact person for all matters related to DG interconnection shall be:
Name: Golden Spread Electric Cooperative
Address: 905 South Fillmore
Amarillo, TX 79101
Phone: 806-374-7766
Email: QualifyingFacility@gsec.coop

3) Ownership of facilities

The Member shall either own and be solely responsible for all expense, installation, maintenance and operation of all facilities, including all power generating facilities at and beyond the point of delivery as defined in the Cooperative's tariffs, or contract with another person to finance, install, or maintain facilities on the Member's side of the meter, regardless of whether the Member takes ownership of the installed distributed generation.

4) Power Export Category

- a) Parallel – no power export
The Member operates a DG facility connected in any way to the Cooperative system but with no intention to export power.
- b) Parallel – primarily intended to be less than or equal to consumption.

The Member operates a DG facility connected in any way to the Cooperative's system rated to produce an amount of electricity less than or equal to the amount of electricity specified in section I. 6) Size Category.

c) Parallel – other

The Member operates a DG facility where either the power generated is intended for export only or where the DG facility is rated to produce an amount of electricity greater than the amount of electricity the Member for whom the DG is installed is reasonably expected to consume: This manual does not cover this category. The Cooperative will consider applications for service under this category on a case-by-case basis.

5) Qualifying or Non-Qualifying Category

a) Qualifying Facilities (QF) are defined by the Public Utility Regulatory Policies Act of 1978 (PURPA). Refer to CFR Title 26, Volume 4, Sec. 292.204.

b) The distinction between QF and Non-Qualifying Facilities (NQF) mainly deals with fuel use.

(1) A QF is defined as electric generation with a capacity of not more than specified in section I. 6) Size Category provided by renewable energy technology, as defined by PURPA, installed on a retail electric customer's (Member's) side of the meter. In general, this means that the DG must have as its primary energy source biomass, waste, renewable resources, geothermal resources or any combination. See PURPA for a full description

(2) DG facilities not designated as QF under the provisions of PURPA will be considered NQF by the Cooperative.

c) The Cooperative will provide interconnection for a DG facility to Members, subject to the provisions of this Manual and all other applicable rules and regulations.

6) Size Category

a) Facilities shall have a rated capacity no more than:

i) 250 kW

ii) 80% of the current listed transformer size at member's location

iii) 80% of member's peak consumption based on previous 12 month's usage

II. MEMBER'S INITIAL REQUIREMENTS

1) Notification

- a) The Member must meet the requirements of all Cooperative tariffs, conditions of service, membership and other service rules and regulations in addition to the requirements in the Manual.
- b) The rated capacity of the Member's DG must not exceed the requirements set forth in this document.
- c) Anyone owning or operating a DG facility in parallel with the Cooperative's system as defined in this manual must notify the Cooperative of the existence, location and category of the DG facility, whether the Member intends to export power to the Cooperative or not.

2) Service Request

- a) In order to interconnect a DG facility to the Cooperative system, a Member must first submit to the Cooperative the "Cooperative Application for Interconnection and Parallel Operation of Distributed Generation," using the form included in this manual.
- b) A separate form must be submitted for each facility.

3) Application Fees

The Cooperative and its Power Supplier, if requested by the Cooperative, may conduct a service study, coordination study and/or utility system impact study prior to interconnection of a DG facility. See the section on Pre-Interconnection Studies that follows.

a) DG facilities for which no pre-interconnection study fee may be charged

The Cooperative will not charge a Member a fee to conduct a pre-interconnection study for single phase pre-certified DG units up to 15 kW that export not more than 15% of the total load on a single radial feeder and contribute not more than 25% of the maximum potential short circuit current on a single radial feeder. All other DG facilities may be charged a fee to offset the costs incurred in a pre-interconnection study.

b) DG facilities for which pre-interconnection study fees may be charged

Prior to the interconnection of a DG facility for which a pre-interconnection study fee may be charged, the Cooperative may charge a Member a fee to offset its costs incurred in a pre-interconnection study.

- i) In the case of DG facilities (1) to be operated in parallel with the Cooperative's system, (2) with no intention to export power to the Cooperative, (3) are single phase voltage, and (4) that are of standard design and intended entirely as emergency or back-up power supply for the facility, the Cooperative may waive the application fee.
- ii) The Member shall receive an estimate of the study cost before the Cooperative initiates the study.

4) Submit a DG Plan

- a) As a part of the application, the Member shall submit a plan detailing the electrical design, interconnection requirements, size, and operational plans for the DG facility (the "DG plan"). Either at the time of submission or at any time during the review process, the Cooperative may require additional information or may require the DG plan to be prepared by a Professional Engineer registered in the state of Texas. Any review or acceptance of such plan by the Cooperative shall not impose any liability on the Cooperative and does not guarantee the adequacy of Producer's equipment to perform its intended function. The cooperative disclaims any expertise or special knowledge relating to the design or performance of generating installations and does not warrant the efficiency, cost-effectiveness, safety, durability or reliability of generating installations.
- b) Prior to review of the DG plan, and any site inspections, by the Cooperative, the Member shall pay a non-refundable \$150 application fee. A separate fee must be submitted for each DG facility.

III. COOPERATIVE AND POWER SUPPLIER REVIEW PROCESS

1) Pre-Interconnection Studies for Interconnection of DG

a) General

The Cooperative and/or its Power Supplier, if requested by the Cooperative, may conduct a service study, coordination study and/or utility system impact study prior to interconnection of a DG facility. In instances where the studies are deemed necessary, the scope of such studies shall be based on the characteristics of the particular DG facility to be interconnected and the Cooperative's system at the specific proposed location. By agreement between the Cooperative and the Member, studies related to interconnection of a DG facility on the Member's premises may be conducted by a qualified third party.

b) Time to complete

The conduct of the pre-interconnection studies shall take no more than four weeks.

c) Reporting

The Cooperative shall prepare written reports of the study findings and make them available to the Member.

d) Costs and Benefits

The study shall consider both the costs incurred and the benefits realized as a result of the interconnection of the distributed generation to the Cooperative's system.

e) Network service

Network service is defined as two or more Cooperative primary distribution feeder sources electrically tied together on the secondary or low voltage side to form one power source for one or more customers. The service is designed to maintain service to the customers even after the loss of one of these primary distribution feeder sources. In the event that a DG facility requests interconnection to a secondary network system, additional requirements may apply.

f) Communications

The Cooperative and the Member agree to treat knowledge gained as a result of the application and/or interconnection studies about the other party as confidential.

g) Liability

The Member acknowledges and agrees that any review or acceptance of such plans, specifications and other information by the Cooperative and/or its Power Supplier shall not impose any liability on the Cooperative and/or its Power Supplier and does not guarantee the adequacy of the Member's equipment or DG facility to perform its intended function. The Cooperative and its Power Supplier disclaim any expertise or special knowledge relating to the design or

performance of generating installations and does not warrant the efficiency, cost-effectiveness, safety, durability, or reliability of such DG installations.

h) Non-discrimination

All applications for interconnection and parallel operation shall be processed by the Cooperative in a non-discriminatory manner. Applications will be processed in the order that they are received. It is recognized that certain applications may require minor modifications while they are being reviewed by the Cooperative. Such minor modifications to a pending application shall not require that it be considered incomplete and treated as a new or separate application.

IV. SALES TO AND PURCHASES FROM A DG FACILITY

1) QF Where the Member Desires to export Power

a) Sales to, and purchase from, a DG facility shall be accomplished as described in the Cooperative's "Tariffs for Electric Service section 202.14 Renewable Resource Generation equal to 250 kW or less" and in accordance with the Cooperative's service rules and regulations. A copy of any applicable portion of the tariff will be provided on request.

b) Net Metering for DG Facilities equal to, or less than, 25 kW

Metering of the Member-Consumer's load will be accomplished by measuring the flow of energy from the Cooperative's system and the flow of energy from the generation installation and netting the energy consumption between the two in the billing process to determine the net monthly flow of energy.

c) Net Metering for DG Facilities greater than 25 kW, and less than, or equal to, 250 kW

In addition to the Cooperative's billing meter, a demand interval meter along with necessary power supply (potential transformers (PTs) and current transformers (CTs) and communication equipment that will make data available to Golden Spread Electric Cooperative is required. Meter must be a Revenue Quality meter with Load Profile Data (minimum 60 days with 4 channels at 15 minutes) and be MV-90 compatible.

2) NQF Where the Member Desires to export Power

a) The Cooperative may choose to provide interconnection and may choose to purchase power from a Member with a DG facility that is an NQF at the sole discretion of the Cooperative as determined on a non-discriminatory case-by-case basis.

V. MEMBER'S RESPONSIBILITY PRIOR TO OPERATION

1) Line Extension and Modifications to Cooperative Facilities

- a) If interconnection of a particular DG facility will require substantial capital upgrades to the Cooperative system, the Cooperative shall provide the Member with an estimate of the schedule and Member's cost for the upgrade. If the Member desires to proceed with the upgrade, the Member and the Cooperative will enter into a contract for the completion of the upgrade.
- b) If the Cooperative concludes that an application for interconnection describes facilities that may require additional devices and operating schemes beyond those described in this manual, the Cooperative shall make those additional requirements known to the Member at the time the interconnection studies are completed.
- c) As a part of the interconnection analysis performed by the Cooperative, the Member will be provided with an estimate of any line extension or other cost to be incurred in providing electric delivery service to the Member's DG facility.
- d) Notwithstanding the Cooperative's line extension policy, the Member shall pay the full cost of construction of any transmission, substation, distribution, transformation, metering, protective, or other facilities or equipment which is required to serve the Member's DG facility.
- e) In the event it is necessary at the time of initial interconnection or at some future time for the Cooperative and/or its Power Supplier to modify electric delivery systems because the Member's DG and/or the quality of power provided by the Member's DG adversely affects the Cooperative and/or its Power Supplier's delivery system, the Member will reimburse the Cooperative and/or its Power Supplier for all costs of modifications required for the interconnection of the Member's DG facilities.

2) Applicable Regulations

The DG facility shall be installed and operated subject to and in accordance with the terms and conditions set forth in the Cooperative's rules, regulations, bylaws, rates and tariffs, the Policies and Procedures of the Cooperative's power supplier where applicable, the Policies and Procedures of the Cooperative's transmission service provider where applicable, and in compliance with all applicable federal, state and local laws, regulations, zoning codes, building codes, safety rules, environmental restrictions, ordinances and regulations, including without limitation, the most recent IEEE Standard 1547 Guide for Distributed Generation Interconnection, other applicable IEEE standards, applicable ANSI standards, including ANSI C84.1 Range A, UL1741 Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources, Electric Reliability Council of Texas (ERCOT) Independent System Operator (ISO) directives and ERCOT guidelines, and in accordance with industry standard prudent engineering practices.

3) Liability Insurance

A Member meeting the standards of this manual shall not be required to purchase any amount, type or classification of liability insurance the Member would not have in the absence of the DG. The Cooperative recommends, however, the Member obtain liability insurance including contractual liability insurance covering indemnity agreements which insures the Member against all claims for property damage and for personal injury or death arising out of, resulting from or in any manner connected with the installation, operation and maintenance of the Member's generating equipment.

4) Warranty

The Member must provide credible tangible proof that the DG to be interconnected has or had an original manufacturer's warranty against breakdown or undue degradation for at least five years.

5) Contracts

The Member will sign and deliver an Agreement for Interconnection to the Cooperative substantially in the form as shown in the COOPERATIVE AGREEMENT FOR INTERCONNECTION AND PARALLEL OPERATION OF DISTRIBUTED GENERATION included in this Manual.

6) Initial Interconnection

The Member shall provide the Cooperative with a completed application for interconnection and parallel operation with the Cooperative system using the form contained in the manual. The interconnection of the DG to the Cooperative system shall take place on the following schedule:

- a) For a facility qualifying under the provisions of pre-certified equipment, as certified under the provisions of the Public Utility Commission of Texas, interconnection shall take place within four weeks of the Cooperative's receipt of a completed interconnection agreement.
- b) For other facilities, interconnection shall take place within six weeks of the Cooperative's receipt of a completed application, except as described in this manual.
- c) If interconnection of a particular DG facility will require substantial capital upgrades to the Cooperative system, the Cooperative shall provide the Member with an estimated of the schedule and Member's cost for the upgrade. If the Member desires to proceed with the upgrade, the Member and the Cooperative will enter into a contract for the completion of the upgrade. The interconnection shall take place no later than two weeks following the completion of such upgrades. The Cooperative shall employ reasonable efforts to complete such system upgrades in the shortest time reasonable practical.
- d) The Cooperative shall use reasonable efforts to interconnect facilities within the time frames described in this manual. If in a particular instance the Cooperative determines that it cannot interconnect a DG facility within the time frames stated

in this manual, it will notify the DG Member in writing of that fact. The notification will identify the reason or reasons interconnection could not be performed in accordance with the schedule and provide an estimated date for interconnection.

- e) The Cooperative's review process and any inspections are intended as a means to safeguard the Cooperative's facilities and personnel. The Member acknowledges and agrees that any review or acceptance of such plans, specifications and other information by the Cooperative and/or its Power Supplier shall not impose any liability on the Cooperative and/or its Power Supplier and does not guarantee the adequacy of the Member's equipment or DG facility to perform its intended function. The Cooperative and its Power Supplier disclaims any expertise or special knowledge relating to the design or performance of generating installations and does not warrant the efficiency, cost-effectiveness, safety, durability, or reliability of such DG installations.

7) Inspection and start-up

The Member shall provide the Cooperative in writing at least thirty (30) days before the initial energizing and start-up testing of the Member's DG equipment and the permit the Cooperative to witness the testing of, and inspect, any equipment and protective systems associated with the interconnection. The Member shall revise and re-submit the application with information reflecting any proposed modification that may affect the safe and reliable operation of the Cooperative system.

8) Eliminate Conditions Preventing Interconnection.

In the event that it comes to the attention of the cooperative that there are conditions preventing safe interconnection and proper parallel operation it shall notify Producer and Producer shall not interconnect and/or initiate parallel operation until such conditions are corrected and Producer has provided at least ten (10) days written notice to the Cooperative.

9) Refusal to Interconnect Service or Disconnection of Service

The Cooperative may, at its sole discretion, prevent the interconnection or disconnect the interconnection of DG facilities due to reasons such as safety concerns, reliability issues, power quality issues, breach of interconnection contract or any other reasonable issue. Any disconnection may be without prior notice.

VI. OPERATION OF PARALLEL FACILITY

The purpose of this section is to describe the requirements and procedures for safe and effective connection and operation of DG.

- a) The Member may operate a 60 Hertz (Hz) three-phase or single-phase DG facility, in parallel with the Cooperative system pursuant to an interconnection agreement, provided that the equipment meets or exceeds the requirements of this manual.
- b) This manual describes typical interconnection requirements. Certain specific interconnection locations and conditions may require the installation and use of more sophisticated protective devices and operating schemes, especially when the facility is exporting power to the Cooperative system.

1) Pre-certified equipment

Equipment pre-certified under the provisions of the Public Utility Commission of Texas may be installed on the Cooperative's system in accordance with an approved interconnection control and protection scheme without further review of their design by the Cooperative, though the protective settings and operations shall be those specified by the Cooperative.

2) General interconnection and protection requirements

- a) The DG shall be equipped with protective hardware and software designed to prevent the DG from being connected to a de-energized circuit owned by the Cooperative.
- b) The DG shall be equipped with the necessary protective hardware and software designed to prevent connection or parallel operation of the DG with the Cooperative system unless the Cooperative system voltage and frequency are of normal magnitude.
- c) The Member will be responsible for protecting his or her DG in such a manner that Cooperative system outages, short circuits, or other disturbances including zero sequence currents and Ferro resonant over-voltages do not damage the Member's DG. The Member's protective equipment shall also prevent unnecessary tripping of the Cooperative system breakers that would affect the Cooperative system's capability of providing reliable service to other members.
- d) Circuit breakers or other interrupting devices at the point of common coupling must be capable of interrupting maximum available fault current.

3) Manual disconnect

- a) The Member will furnish and install a manual disconnect device that has a visual break that is appropriate to the voltage level (a disconnect switch, a draw-out breaker, or fuse block), and is accessible to the Cooperative personnel, and capable of being locked in the open position by a cooperative padlock. The Member shall follow the Cooperative's switching, clearance, tagging, and locking procedures, which the Cooperative shall provide for the Member. The

Cooperative shall have the right to lock the switch open whenever, in the judgment of the Cooperative,

- i) it is necessary to maintain safe electrical operating or maintenance conditions,
 - ii) the Producer's power generating installation adversely affects the Cooperative's electric distribution system, or
 - iii) there is a system emergency or other abnormal operating condition which warrants disconnection.
- b) The Cooperative reserves the right to operate the disconnect for the protection of the Cooperative's system even if it affects Producer's power generating installation. In the event the Cooperative opens and closes the disconnect switch it shall not be responsible for energizing or restoration of parallel operation of the generating installation. The Cooperative will make reasonable efforts to notify the Producer in the event the disconnect switch has been operated. The Producer will not bypass the disconnect switch at any time for any reason.

4) Prevention of interference

a) Voltage

The Member will operate its DG in such a manner that the voltage levels on the Cooperative system are in the same range as if the DG were not connected to the Cooperative system. The Member shall provide an automatic method of disconnecting the DG from the Cooperative system if a sustained voltage deviation in excess of +5% or -10% from normal voltage persists for more than 30 seconds, or a deviation in excess of +10% or -30% from normal voltage persists for more than 10 cycles. The Member may reconnect when the Cooperative system voltage and frequency return to normal range and the system is stabilized.

b) Power Factor

Producer shall generate at a power factor that is as near one hundred percent (100%) as is practicable. In the event that the power factor is less than ninety percent (97%) lagging or leading, the Producer will provide proper power factor correction or reimburse the Cooperative for the cost of any necessary correction.

c) Flicker

The Member's equipment shall not cause excessive voltage flicker on the Cooperative's system. This flicker shall not exceed 3% voltage dip, in accordance with the IEEE Standard 519 as measured at the point of common coupling.

d) Frequency

The operating frequency of the Member's DG shall not deviate more than +0.5 Hz or -0.7 Hz from a 60 Hz base. The Member shall automatically disconnect the DG from the Cooperative system within 15 cycles if this frequency tolerance cannot be maintained. The Member may reconnect when the Cooperative system voltage and frequency return to normal range and the system is stabilized.

e) Harmonics

In accordance with IEEE Standard 519 the total harmonic distortion (THD) voltage shall not exceed 5% of the fundamental 60 Hz frequency nor 3% of the fundamental frequency for any individual harmonic when measuring at the point of common coupling with the utility system.

f) Fault and line clearing

The Member shall automatically disconnect from the Cooperative system within 10 cycles if the voltage on one or more phases falls below -30% of nominal voltage on the Cooperative system serving the Member premises. This disconnect timing also ensures that the DG is disconnected from the Cooperative system prior to automatic re-close of breakers. The member may reconnect when the Cooperative system voltage and frequency return to normal range and the system is stabilized. To enhance reliability and safety and with the Cooperative's approval, the member may employ a modified relay scheme with

delayed tripping or blocking using communications equipment between the Member and the Cooperative.

g) Protective function requirements

i) Facilities rated 15 kW or less

Must have an interconnect disconnect device, a generator disconnect device, an over-voltage trip, an under-voltage trip, an over/under frequency trip, and a manual or automatic synchronizing check (for facilities with stand alone capability).

ii) Facilities rated in excess of 15 kW but not more than 250 kW

Must have an interconnect disconnect device, a generator disconnect device, an over-voltage trip, and under-voltage trip, and over/under frequency trip, a manual or automatic synchronizing check (for facilities with stand alone capability), either a ground over-voltage trip or a ground over-current trip depending on the ground system if required by the Cooperative, an reverse power sensing if the facility is not exporting (unless the generator is less than the minimum load of the Member).

h) Control, protection and safety equipment requirements specific to three-phase synchronous generators, induction generators, and inverter systems

i) Three phase synchronous generators

The Member's DG circuit breakers shall be three-phase devices with electronic or electromechanical control. The Member is solely responsible for properly synchronizing its generator with the Cooperative. The excitation system response ratio shall not be less than 0.5. The generator's excitation system(s) shall conform, as near as reasonably achievable, to the field voltage versus time criteria specified in the ANSI Standard C50.13-1989 in order to permit adequate field forcing during transient conditions.

ii) Three phase induction generators and inverter systems

Induction generation may be connected and brought up to synchronous speed (as an induction motor) if it can be demonstrated that the initial voltage drop measured on the utility system at the point of common coupling is within the visible flicker stated in this manual. Otherwise, the Member may be required to install hardware or employ other techniques to bring voltage fluctuations to acceptable levels. Line-commutated inverters do not require synchronizing equipment. Self-commutated inverters whether of the utility-interactive type or stand-alone type shall be used in parallel with the utility system only with synchronizing equipment. Direct-current generation shall not operate in parallel with the utility system.

i) Facilities not identified

In the event the standards for a specific unit or facility are not set out in this manual, the Cooperative and the Member may interconnect a facility using mutually agreed upon technical standards.

- j) Inspection and start-up
The Member shall provide the Cooperative with notice at least two weeks before the initial energizing and start-up testing of the Member's DG equipment and the Cooperative may witness the testing of any equipment and protective systems associated with the interconnection. The Member shall revise and re-submit the application with information reflecting any proposed modification that may affect the safe and reliable operation of the Cooperative system.

 - k) Site testing and commissioning
Testing of protection systems shall include procedures to functionally test the protective elements of the system up to and including tripping of the generator and interconnection point. Testing will verify all protective set points and relay/breaker trip timing. The Cooperative may witness the testing of installed switchgear, protection and generator. The Member is responsible for routine maintenance of the generator and control and protective equipment. The Member will maintain records of such maintenance activities, which the Cooperative may review at reasonable times.
- 5) Access
- a) Persons authorized by the Cooperative will have the right to enter the Member's property for purposes of testing, operating the disconnect switch, reading or testing the metering equipment, maintaining right-of-way or other DG facility equipment and/or Cooperative service requirement. Such entry onto the Member's property may be without notice.
 - b) If the Member erects or maintains locked gates or other barriers, the Member will furnish the Cooperative with convenient means to circumvent the barrier for full access for the above-mentioned reasons.
- 6) Liability for Injury and Damages

- a) The Member assumes full responsibility for electric energy furnished at and past the point of delivery and shall indemnify the Cooperative and/or its Power Supplier against and hold the Cooperative and/or its Power Supplier harmless from all claims for both injuries to persons, including death resulting therefrom, and damages to property occurring upon the premises owned or operated by Member arising from electric power and energy delivered by the Cooperative or in any way arising directly or indirectly from the Member's DG facility.
- b) The Cooperative and/or its Power Supplier shall not be liable for either direct or consequential damages resulting from failures, interruptions, or voltage and waveform fluctuations occasioned by causes reasonably beyond the control of the Cooperative and/or its Power Supplier including, but not limited to, acts of God or public enemy, sabotage and/or vandalism, accidents, fire, explosion, labor troubles, strikes, order of any court or judge granted in any bona fide adverse legal proceeding or action, or any order of any commission, tribunal or governmental authority having jurisdiction. ALL PROVISIONS NOTWITHSTANDING, IN NO EVENT SHALL THE COOPERATIVE BE LIABLE TO THE MEMBER FOR ANY INTEREST, LOSS OF ANTICIPATED REVENUE, EARNINGS, PROFITS, OR INCREASED EXPENSE OF OPERATIONS, LOSS BY REASON OF SHUTDOWN OR NON-OPERATION OF MEMBER'S PREMISES OR FACILITIES FOR ANY INDIRECT, INCIDENTAL, OR CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED, IN WHOLE OR PART, TO THIS AGREEMENT. The Cooperative shall not be liable in any event for consequential damages.
- c) The Member is solely responsible for insuring his/her facility complies with all applicable regulations including, but not limited to, laws, regulations, ordinances, Cooperative and Cooperative Power Supplier tariffs, policies and directives, and ERCOT rules, policies and directives.

7) Metering/Monitoring

- a) The Cooperative may supply, own and maintain all necessary meters and associated equipment to record energy purchases by the Member and energy exports to the Cooperative system.
- b) The Member shall supply at no cost to the Cooperative a suitable location on his or her premises for the installation of the Cooperative's meters and other equipment.
- c) The meter(s) shall be read at a time or times of month determined by the Cooperative's for acquiring metering data.
- d) Meter testing shall follow the Cooperative's standard policy on metering testing and accuracy.
- e) At its sole discretion, the Cooperative may meter the facility at primary or secondary level.

8) Notice of Change in Installation

- a) The Member will notify the Cooperative in writing thirty (30) days in advance of making any change affecting the characteristics, performance, or protection of the DG facility.
- b) If any modification undertaken by the Member will create or has created conditions which may be unsafe or adversely affect the Cooperative system, the Member shall immediately correct such conditions or be subject to immediate disconnection from the Cooperative system.

9) Testing and Record Keeping

- a) The Cooperative shall maintain records concerning applications received for interconnection and parallel operation of DG facilities. Such records will include the date each application is received, documents generated in the course of processing each application, correspondence regarding each application, and the final disposition of each application.
- b) The Member will test all aspects of the protection systems up to and including tripping of the generator and interconnection point at start-up and thereafter as required. Testing will verify all protective set points and relay/breaker trip timing and shall include procedures to functionally test all protective elements of the system. The Cooperative may witness the testing.
- c) The Member will maintain records of all maintenance activities, which the Cooperative may review at reasonable times.

10) Disconnection and Reconnection of Service

- a) The Cooperative may disconnect a DG facility under the following conditions:
 - i) Expiration or termination of the interconnection agreement
Upon expiration or termination of the interconnection agreement with a Member, in accordance with the terms of the agreement, the Cooperative may disconnect the DG facilities.
 - ii) Non-compliance with technical requirements
The Cooperative may disconnect a DG facility if the facility is not in compliance with the technical requirements specified in this manual. Within two business days from the time the Member notifies the Cooperative that the DG facility has been restored to compliance with the technical requirements of this manual, the Cooperative shall verify such compliance. Upon such verification, the Member in coordination with the Cooperative may reconnect the DG facility.
 - iii) System emergency
The Cooperative may temporarily disconnect a Member and/or a DG facility without prior written notice in cases where continued interconnection will endanger persons or property. During the forced outage of the Cooperative system, the Cooperative shall have the right to temporarily disconnect a Member and/or a DG facility to make immediate repairs on the Cooperative

system. When possible, the Cooperative shall provide the Member with reasonable notice and reconnect the Member as quickly as reasonable practical.

iv) Routine maintenance, repairs and modifications

The Cooperative may disconnect a Member and/or a DG facility with seven business days prior written notice of service interruption for routine maintenance, repairs and Cooperative system modifications. The Cooperative shall reconnect the Member as quickly as reasonably possible following such service interruption.

v) Lack of approved application and interconnection agreement

The Cooperative may refuse to connect or may disconnect a DG facility if the application has not been received and approved.

**TAYLOR ELECTRIC COOPERATIVE, INC.
AGREEMENT FOR INTERCONNECTION AND PARALLEL OPERATION OF
DISTRIBUTED GENERATION**

This Interconnection Agreement ("Agreement") is made and entered into this ____ day of _____, 20__, by _____, ("Cooperative"), a corporation organized under the laws of _____, and _____ ("DG Owner/Operator"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties." In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1. Scope of Agreement -- This Agreement is applicable to conditions under which the Cooperative and the DG Owner/Operator agree that one or more generating facilities (described in Exhibit A) owned by the DG Owner/Operator of _____ kW or less, to be interconnected at _____ kV or less ("Facilities") may be interconnected to the Cooperative's electric power distribution system ("System").

The provisions of the Cooperative's Distributed Generation Manual shall be considered to be a part of this contract.

2. Establishment of Point of Interconnection - The point where the electric energy first leaves the wires or facilities owned by the Cooperative and enters the wires or facilities provided by DG Owner/Operator is the "Point of Interconnection." Cooperative and DG Owner/Operator agree to interconnect the Facilities at the Point of Interconnection in accordance with the Cooperative's Rules and Regulations and DG Manual relating to interconnection of Distributed Generation (the "Rules") and as described in the attached Exhibit A. The interconnection equipment installed by the DG Owner/Operator ("Interconnection Facilities") shall be in accordance with the Rules as well.

3. Responsibilities of Cooperative and DG Owner/Operator for Installation, Operation and Maintenance of Facilities - DG Owner/Operator will, at its own cost and expense, operate, maintain, repair, and inspect, and shall be fully responsible for, its Facilities, unless otherwise specified on Exhibit A. DG Owner/Operator shall conduct operations of its Facilities in compliance with all aspects of the Rules, and Cooperative shall conduct operations of its electric distribution facilities in compliance with all aspects of the Rules, or as further described and mutually agreed to in the applicable Facilities Schedule. Maintenance of Interconnection Facilities shall be performed in accordance with the applicable manufacturers' recommended maintenance schedule. The DG Owner/Operator agrees to cause its Interconnection Facilities to be constructed in accordance with specifications equal to or better than those provided by the National Electrical Safety Code and the National Electrical Code, both codes approved by the American National Standards Institute, in effect at the time of construction.

The DG Owner/Operator covenants and agrees to cause the design, installation, maintenance, and operation of, its Facilities and Interconnection Facilities so as to reasonably minimize the likelihood of a malfunction or other disturbance, damaging or otherwise affecting or impairing the System. DG Owner/Operator shall comply with all applicable laws, regulations, zoning codes, building codes, safety rules and environmental restrictions applicable to the design, installation and operation of its Facilities and Interconnection Facilities.

Cooperative will notify DG Owner/Operator if there is evidence that the Facilities' operation causes disruption or deterioration of service to other customer(s) served from the System or if the Facilities' operation causes damage to the System. DG Owner/Operator will notify the Cooperative of any emergency or hazardous condition or occurrence with the DG Owner/Operator's Facilities, which could affect safe operation of the System.

4. Operator in Charge - The Cooperative and the DG Owner/Operator shall each identify an individual (by name or title) who will perform as "Operator in Charge" of the facilities and their section of the Interconnection Facilities. This individual must be familiar with this Agreement as well as provisions of other agreements and any regulations that may apply.

5. Limitation of Liability and Indemnification

- a. Notwithstanding any other provision in this Agreement, with respect to the Cooperative's provision of electric service to DG Owner/Operator and the services provided by the Cooperative pursuant to this Agreement, Cooperative's liability to DG Owner/Operator shall be limited as set forth in the Cooperative's tariffs and terms and conditions for electric service, which are incorporated herein by reference.
- b. Neither Cooperative nor DG Owner/Operator shall be liable to the other for damages for any act or omission that is beyond such party's control, including, but not limited to, any event that is a result of an act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, explosion, breakage or accident to any part of the System or to any other machinery or equipment, a curtailment, law, order, or regulation or restriction by governmental, military, or lawfully established civilian authorities.
- c. Notwithstanding Paragraph 5.b of this Agreement, the DG Owner/Operator shall assume all liability for, and shall indemnify Cooperative for, any claims, losses, costs, and expenses of any kind or character to the extent that they result from DG Owner/Operator's negligence or other wrongful conduct in connection with the design, construction or operation of the Facilities or Interconnection Facilities. Such indemnity shall include, but is not limited to, financial responsibility for (a) monetary losses; (b) reasonable costs and expenses of defending an action or claim; (c) damages related to death or injury; (d) damages to property; and (e) damages for the disruption of business. This paragraph does not create a liability on the part of the DG Owner/Operator to the Cooperative or a third person, but requires indemnification where such liability exists.
- d. Cooperative and DG Owner/Operator shall each be responsible for the safe installation, maintenance, repair and condition of their respective lines, wires, switches, or other equipment or property on their respective sides of the Point of Interconnection. The Cooperative, while retaining the right to inspect, does not assume any duty of inspecting the DG Owner/Operator's lines, wires, switches, or other equipment or property and will not be responsible therefore. DG Owner/Operator assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith at or beyond the Point of Interconnection.
- e. For the mutual protection of the DG Owner/Operator and the Cooperative, only with Cooperative prior written authorization are the connections between the Cooperative's

service wires and the DG Owner/Operator's service entrance conductors to be energized.

6. Design Reviews and Inspections - The DG Owner/Operator shall provide to the Cooperative the following documentation and inspection results:

- a. One-Line Diagram. The diagram shall include at a minimum, all major electrical equipment that is pertinent to understanding the normal and contingency operations of the DG Interconnection Facilities, including generators, switches, circuit breakers, fuses, protective relays and instrument transformers.
- b. Testing Records. Testing of protection systems shall be limited to records of compliance with standard acceptance procedures and by industry standards and practices. These records shall include testing at the start of commercial operation and periodic testing thereafter.

7. Right of Access, Equipment Installation, Removal & Inspection - The Cooperative may send an employee, agent or contractor to the premises of the DG Owner/Operator at any time whether before, during or after the time the Facility first produces energy to inspect the Interconnection Facilities, and observe the Facility's installation, commissioning (including any testing), startup, and operation.

At all times Cooperative shall have access to DG Owner/Operator's premises for any reasonable purpose in connection with the interconnection described in this Agreement, the Rules, or to provide service to its customers.

8. Confidentiality of Information - Unless compelled to disclose by judicial or administrative process, or by other provisions of law or as otherwise provided for in this Agreement, the DG Owner/Operator and the Cooperative will hold in confidence any and all documents and information furnished by the other party in connection with this Agreement.

9. Prudent Operation and Maintenance Requirements - The DG Owner/Operator shall operate and maintain its Facilities and Interconnection Facilities in accordance with industry standards prudent electrical practices in effect at the time a DG Owner/Operator executes an interconnection agreement with the Cooperative.

10. Disconnection of Unit - DG Owner/Operator retains the option to disconnect its Facilities from the System, provided that DG Owner/Operator notifies the Cooperative of its intent to disconnect by giving the Cooperative at least thirty (30) days' prior written notice. Such disconnection shall not be a termination of the Agreement unless DG Owner/Operator exercises rights under Section 13.

DG Owner/Operator shall disconnect Facilities from the System upon the effective date of any termination under Section 13.

Subject to the Rules, for routine maintenance and repairs on the System, Cooperative shall provide DG Owner/Operator with seven (7) business days' notice of service interruption.

Cooperative shall have the right to suspend service in cases where continuance of service to DG Owner/Operator will endanger persons or property. During the forced outage of the System serving DG Owner/Operator, Cooperative shall have the right to suspend service to effect repairs

on the System, but the Cooperative shall use its efforts to provide the DG Owner/Operator with reasonable prior notice.

11. **Metering** - Metering shall be accomplished as described in the Cooperative's DG Manual.

12. **Insurance** – Insurance shall be required as described in the Cooperative's DG Manual.

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

14. **Dispute Resolution** - Each party agrees to attempt to resolve any and all disputes arising hereunder promptly, equitably and in good faith. If a dispute arises under this Agreement that cannot be resolved by the parties within forty-five (45) working days after written notice of the dispute, the parties agree to submit the dispute to mediation by a mutually acceptable mediator. The parties agree to participate in good faith in the mediation for thirty (30) days. If the parties are unsuccessful in resolving their dispute through mediation, then the parties shall submit to arbitration pursuant to the Commercial Arbitration Rules of the American Arbitration Association. The venue of such arbitration shall be _____.

15. **Compliance with Laws, Rules and Tariffs** - Both the Cooperative and the DG Owner/Operator shall be responsible for complying with all applicable laws, rules and regulations, including but not limited to the laws of the state of Texas, and the Cooperative's DG Manual, Tariffs, Rules and Regulations, By-Laws and other governing documents. The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules of the Cooperative as applicable to the electric service provided by the Cooperative, which tariffs and rules are hereby incorporated into this Agreement by this reference. The Cooperative shall have the right to publish changes in rates, classification, service or rule, with the proper notification to all DG owners/operators and Cooperative members.

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

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

18. Entirety of Agreement and Prior Agreements Superseded - This Agreement, including the Rules and all attached Exhibits and Facilities Schedules, which are expressly made a part hereof for all purposes, constitutes the entire agreement and understanding between the Parties with regard to the interconnection of the facilities of the Parties at the Points of Interconnection expressly provided for in this Agreement. The Parties are not bound by or liable for any statement, representation, promise, inducement, understanding, or undertaking of any kind or nature (whether written or oral) with regard to the subject matter hereof not set forth or provided for herein or in the DG Owner/Operator application, or other written information provided by the DG Owner/Operator in compliance with the Rules. It is expressly acknowledged that the Parties may have other agreements covering other services not expressly provided for herein, which agreements are unaffected by this Agreement.

19. Force Majeure -For the purposes of this Agreement, a Force Majeure event is any event: (a) that is beyond the reasonable control of the affected party; and (b) that the affected party is unable to prevent or provide against by exercising reasonable diligence, including the following events or circumstances, but only to the extent that they satisfy the preceding requirements: acts of war, public disorder, rebellion or insurrection; floods, hurricanes, earthquakes, lighting, storms or other natural calamities; explosions or fires; strikes, work stoppages or labor disputes; embargoes; and sabotage. If a Force Majeure event prevents a party from fulfilling any obligations under this agreement, such party will promptly notify the other party in writing and will keep the other party informed on a continuing basis as to the scope and duration of the Force Majeure event. The affected party will specify the circumstances of the Force Majeure event, its expected duration and the steps that the affected party is taking to mitigate the effect of the event on its performance. The affected party will be entitled to suspend or modify its performance of obligations under this Agreement but will use reasonable efforts to resume its performance as soon as possible.

20. Assignment - At any time during the term of this Agreement, the DG Owner/Operator may assign this Agreement to a corporation, an entity with limited liability or an individual (the "Assignee"), provided that the DG Owner/Operator obtains the consent of the Cooperative in advance of the assignment. The Cooperative's consent will be based on a determination that the Assignee is financially and technically capable to assume ownership and/or operation of the DG unit. The company or individual to which this Agreement is assigned will be responsible for the proper operation and maintenance of the unit, and will be a party to all provisions of this Agreement.

21. Permits, Fees and Approvals - The Cooperative will have responsibility for the review, approval or rejection of the DG interconnection application. The approval process is intended to ensure that the implementation of the applicant's DG unit will not adversely affect the safe and reliable operation of the Cooperative's System. The fees associated with the Application are listed in the most current fee schedule issued by the Cooperative. All fees are to be submitted in the form of a Bank Cashier's check along with the Application, unless other payment terms have been approved in advance by the Cooperative.

22. Notices - Notices given under this Agreement are deemed to have been duly delivered if hand delivered or sent by United States certified mail, return receipt requested, postage prepaid, to:

(a) If to Cooperative:

(b) If to DG Owner/Operator:

The above-listed names, titles, and addresses of either Party may be changed by written notification to the other, notwithstanding Section 17.

23. Invoicing and Payment - Invoicing and payment terms for services associated with this Agreement shall be consistent with applicable Rules of the Cooperative.

24. Limitations (No Third-Party Beneficiaries, Waiver, etc.) - This Agreement is not intended to, and does not create, rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties. This Agreement may not be assigned by the DG Owner/Operator without the prior written consent of the Cooperative as specified in Section 20. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered to waive the obligations, rights, or duties imposed upon the Parties.

25. Headings - The descriptive headings of the various articles and 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.

26. Multiple Counterparts - This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

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

[COOPERATIVE NAME]

[DG OWNER/OPERATOR NAME]

BY: _____

BY: _____

TITLE: _____

TITLE: _____

DATE: _____

DATE: _____

EXHIBIT A: DESCRIPTION OF FACILITIES AND POINT OF INTERCONNECTION

DG Owner/Operator will, at its own cost and expense, operate, maintain, repair, and inspect, and shall be fully responsible for its Facilities, unless otherwise specified on Exhibit A.

FACILITIES SCHEDULE NO.

[The following information is to be specified for each Point of Interconnection, if applicable]

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

[COOPERATIVE NAME]

[DG OWNER/OPERATOR NAME]

BY: _____

BY: _____

TITLE: _____

TITLE: _____

DATE: _____

DATE: _____

**TAYLOR ELECTRIC COOPERATIVE, INC.
APPLICATION FOR OPERATION OF CUSTOMER OWNED GENERATION**

This application should be completed as soon as possible and returned to the Cooperative Customer Service representative in order to begin processing the request. See *Distributed Generation Procedures and Guidelines Manual for Members* for additional information.

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

**PART 1
OWNER/APPLICANT INFORMATION**

Company: _____
Mailing Address: _____
City: _____ County: _____ State: _____ Zip Code: _____
Phone Number: _____ Representative: _____

PROJECT DESIGN/ENGINEERING (as applicable)

Company: _____
Mailing Address: _____
City: _____ County: _____ State: _____ Zip Code: _____
Phone Number: _____ Representative: _____

ELECTRICAL CONTRACTOR (as applicable)

Company: _____
Mailing Address: _____
City: _____ County: _____ State: _____ Zip Code: _____
Phone Number: _____ Representative: _____

TYPE OF GENERATOR (as applicable)

Photovoltaic _____ Wind _____ Microturbine _____
Diesel Engine _____ Gas Engine _____ Turbine Other _____

ESTIMATED LOAD INFORMATION

The following information will be used to help properly design the Cooperative customer interconnection. This information is not intended as a commitment or contract for billing purposes.

Total Site Load _____ (kW) Total DG Output _____ (kW)

Mode of Operation (check all that apply)

Isolated _____ Paralleling _____ Power Export _____

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Give a general description of the proposed installation, including when you plan to operate the generator.

PART 2

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

SYNCHRONOUS GENERATOR DATA

Unit Number: _____ Total number of units with listed specifications on site: _____
 Manufacturer: _____
 Type: _____ Date of manufacture: _____
 Serial Number (each): _____
 Phases: Single ____ Three ____ R.P.M.: _____ Frequency (Hz): _____
 Rated Output (for one unit): _____ Kilowatt _____ Kilovolt-Amper _____
 Rated Power Factor (%): _____ Rated Voltage (Volts) _____ Rated Amperes: _____
 Field Volts: _____ Field Amps: _____ Motoring power (kW): _____

Synchronous Reactance (X'd): _____ % on _____ KVA base
 Transient Reactance (X'd): _____ % on _____ KVA base
 Subtransient Reactance (X'd): _____ % on _____ KVA base
 Negative Sequence Reactance (Xs): _____ % on _____ KVA base
 Zero Sequence Reactance (Xo): _____ % on _____ KVA base
 Neutral Grounding Resistor (if applicable): _____

I_2^2t of K (heating time constant): _____
 Additional Information: _____

INDUCTION GENERATOR DATA

Rotor Resistance (Rr): _____ ohms Stator Resistance (Rs): _____ ohms

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

PRIME MOVER (Complete all applicable items)

Unit Number: _____ Type: _____
 Manufacturer: _____
 Serial Number: _____ Date of manufacturer: _____
 H.P. Rates: _____ H.P. Max.: _____ Inertia Constant: _____ lb.-ft²
 Energy Source (hydro, steam, wind, etc.) _____

GENERATOR TRANSFORMER (Complete all applicable items)

TRANSFORMER (between generator and utility system)
 Generator unit number: _____ Date of manufacturer: _____
 Manufacturer: _____
 Serial Number: _____
 High Voltage: _____ KV, Connection: delta wye, Neutral solidly grounded? _____
 Low Voltage: _____ KV, Connection: delta wye, Neutral solidly grounded? _____
 Transformer Impedance (Z): _____ % on _____ KVA base
 Transformer Resistance (R): _____ % on _____ KVA base
 Transformer Reactance (X): _____ % on _____ KVA base
 Neutral Grounding Resistor (if applicable): _____

INVERTER DATA (if applicable)

Manufacturer: _____ Model: _____
 Rate Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____
 Inverter Type (ferroresonant, step, pulse-width modulation, etc.): _____
 Type commutation: forced line
 Harmonic Distortion: Maximum Single Harmonic (%) _____
 Maximum Total Harmonic (%) _____
 Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

POWER CIRCUIT BREAKER (if applicable)

Manufacturer: _____ Model: _____
 Rated Voltage (kilovolts): _____ Rated ampacity (Amperes) _____
 Interrupting rating (Amperes): _____ BIL Rating _____
 Interrupting medium / insulating medium (ex. Vacuum, gas, oil) _____ / _____
 Control Voltage (Closing): _____ (Volts) AC DC
 Control Voltage (Tripping): _____ (Volts) AC DC Battery Charged Capacitor
 Close energy: Spring Motor Hydraulic Pneumatic Other: _____

Trip energy: Spring Motor Hydraulic Pneumatic Other: _____
Bushing Current Transformers: _____ (Max. ratio) Relay Accuracy Class: _____
Multi Ratio? No Yes: (available taps) _____

ADDITIONAL INFORMATION

In addition to the items listed above, please attach a detailed one-line diagram of the proposed facility, all applicable elementary diagrams, major equipment (generators, transformers, inverters, circuit breakers, protective relays, etc.), specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection.

SIGN OFF AREA

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

Applicant _____ Date

TAYLOR ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact: _____
Title: _____
Address: _____

Phone: _____
Fax: _____

TAYLOR ELECTRIC COOPERATIVE, INC.

Distributed Generation Rider

Application.

Applicable to Qualifying Distributed Generation Facilities meeting the requirements of the Cooperative's "Tariffs for Electric Service section 202.14 Renewable Resource Generation equal to 250 kW or less" and in accordance with the Cooperative's service rules and regulations. A copy of any applicable portion of the tariff will be provided on request.