

## **AGREEMENT FOR INTERCONNECTION AND OPERATION OF DISTRIBUTED GENERATION**

This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Farmers Electric Cooperative, Inc., ("Cooperative"), and \_\_\_\_\_ ("Member"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

WHEREAS, Cooperative is a non-profit corporation organized under the laws of the State of Texas;

WHEREAS, Cooperative is an electric cooperative which provides retail electric service to its members and consumers;

WHEREAS, Member is a member of the Cooperative;

WHEREAS, the Member desires to interconnect and operate its Member Facilities in parallel with the Cooperative's electric power distribution system ("Cooperative System").

NOW THEREFORE, in consideration of the mutual promises, warranties, agreements, and representations set forth herein, the receipt and sufficiency of which hereby are acknowledged, the Parties hereto hereby agree as follows:

This Agreement is applicable only to conditions under which Cooperative and Member agree that one or more Member owned generating facilities (described in Exhibit A) with Rated Capacity or Nameplate Capacity of less than one (1) megawatt (MW), to be interconnected at \_\_\_\_\_ kV or less ("Member Facility") may be interconnected to the Cooperative System. Any member facility which has a Rated Capacity or Nameplate Capacity of one (1) megawatt (MW) or more shall not be considered under this agreement and shall be negotiated in a separate instrument.

Nothing herein shall supersede any requirement of any applicable tariff, rule, regulation, or applicable law under which Cooperative currently operates.

### **GENERAL PROVISIONS**

It is the intent of the Cooperative to allow Members to install Distributed Generation (DG), provided the Member's DG facility does not adversely affect the Cooperative. The Member should conduct his or 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. However, a DG facility connected in any way to the Cooperative's system shall be considered as in parallel. For purposes of this Agreement, 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 Agreement shall apply to parallel operation of DG facilities as so defined. Members shall fully comply with this Agreement and any amendments thereto at the sole discretion of the Cooperative.

This Agreement does not contain a complete description or listing of all applicable laws, ordinances, rules and regulations, nor is this Agreement 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, in addition to all provisions of this Agreement, the Cooperative's *Rules and Regulations and Tariffs for Electric Service*, the Cooperative's *Line Extension Policy*, 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, the current *IEEE 1547 Standard Guide for Distributed Generation Interconnection* (a copy is on file at the Cooperative for inspection along with information so the Member may obtain his or her own copy), other applicable IEEE standards, applicable ANSI standards, including ANSI C84.1 Range A and any other applicable governmental and regulatory laws, rules, ordinances or requirements. All legal, technical, financial, or other requirements in the following sections of this Agreement must be met prior to interconnection of the DG facility to the Cooperative's system.

A Member may serve all load behind the Cooperative billing 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 written approval by the Cooperative.

## **ARTICLE I. DETERMINE THE CATEGORY OF DISTRIBUTED GENERATION FACILITY**

Prior to application, Member shall determine the following for the proposed DG facility:

### 1) Connection Level Category

a) Connected to the Cooperative's system:

The Member requests or the Member's DG facility requires connection to the Cooperative's system. All provisions of this Agreement cover this category.

b) Connected to the Cooperative's Power Supplier's system:

The Member requests or the Member's DG facility requires connection to the Cooperative's Power Supplier's system. This Agreement does NOT cover this category.

### 2) 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 – power generated to be both consumed and exported:

The Member operates a DG facility connected in any way to the Cooperative's system designed primarily to serve the Member's own load but with the intention to export excess power.

- c) Parallel – power generated to be exported only:

The Member operates a DG facility connected in any way to the Cooperative's system designed primarily with the intention to export power.

### 3) 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) is based on the facility's fuel source.
- (1) Generally, a QF must have as its primary energy source biomass, waste, renewable resources, geothermal resources or any combination thereof. See guidelines contained in 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 Agreement and all other applicable rules and regulations.
- d) The Cooperative will purchase power from a Member with a DG facility that is a QF, subject to the provisions of this Agreement and other applicable rules and regulations.
- e) The Cooperative in its sole discretion may purchase power from a Member with a DG facility that is an NQF.

### 4) Size Category

- a) Facilities 50 kW and smaller:  
Facilities less than or equal to 50 kW of connected generation will be placed in this size category unless the Member requests connection under the provisions of this Agreement applicable to facilities greater than 50 kW size category.
- b) Facilities above 50 kW and below 1 MW:  
Facilities more than 50 kW, but below 1 MW of connected generation will be placed in this size category. Facilities less than or equal to 50 kW may be placed in this size category if so requested by the Member.
- c) Facilities at or above 1 MW of connected generation:  
Not addressed by this Agreement.

## **ARTICLE II. MEMBER'S INITIAL REQUIREMENTS**

Prior to installation, Member shall comply with the following:

1) Notification

The Member must meet all the Cooperative’s membership and service requirements in addition to the requirements found in this Agreement.

2) Service Request

- a) In advance of installation of generation or DG equipment, the Member must complete Exhibit A “Farmers Electric Application for Operation of Customer-Owned Generation” of this Agreement and submit it to the appropriate Farmers Electric address.
- b) A separate form must be submitted for each facility.

3) Submit a DG Plan

- a) Member shall complete Exhibit A, which includes detailing the electrical design, interconnection requirements, size, operational plans for the DG facility, and a one-line diagram (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.
- b) Prior to review of the application and DG plan by the Cooperative, the Member shall pay an application fee as indicated below. A separate fee must be submitted for each DG facility.

DG Size (Connected Load)	Application Fee	Additional Engineering Fee
0 to 50 kW	None	As Required
50 kW+ to less than 1 MW	\$100	As Required
1 MW +	Not covered by this Agreement	

- c) For proposed DG installations over 15kW, Member shall provide Cooperative with sufficient information for Cooperative to conduct a study to determine the maximum DG installation size at the Member’s proposed location.

### **ARTICLE III. COOPERATIVE AND POWER SUPPLIER REVIEW PROCESS**

#### 1) Plan Review Process

- a) The Cooperative and its Power Supplier, if requested by the Cooperative, will review the application and accompanying documents, plans, specifications, and other information provided and will return an interconnection analysis to the Member within 60 days of receipt of final plans and specifications.
- b) Technical review will be consistent with guidelines established by the most recent *IEEE Standard 1547 Guide for Distributed Generation Interconnection*. The Member may be required by the Cooperative to provide proof that their DG Facilities have been tested and certified by applicable IEEE guidelines.
- c) If corrections or changes to the plans, specifications, and other information are to be made by the Member, the 60 day period may be reinitialized when such changes or corrections are provided to the Cooperative. In addition, any changes to the site or project requiring new analysis by the Cooperative may require additional cost and a new DG plan. The cost will be determined by the Cooperative and shall be paid by the Member.
- d) The Member acknowledges and agrees that any review or acceptance of such plans, specifications, and other information by the Cooperative or its Power Supplier shall not impose any liability on the Cooperative 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. Installation and operation of the DG facility shall at all times be at the Member's sole risk and sole expense.
- e) In the event it is necessary at the time of initial interconnection or at some future time for the Cooperative or its Power Supplier to modify electric delivery systems in order to serve the Member's DG facilities or purchase or continue to purchase the output of the Member's DG facilities, or because the quality of the power provided by the Member's DG adversely affects the Cooperative's or its Power Supplier's delivery system, the Member will be responsible to pay the Cooperative or its Power Supplier in advance for all costs of modifications required for the interconnection of the Member's DG facilities.

### **ARTICLE IV. SALES TO AND PURCHASES FROM A DG FACILITY**

#### 1) For all DG where the Member desires to export power

- a) All DG facilities shall be billed under one of the Cooperative's existing rate tariffs.
- b) All sales of electric power and energy by the Cooperative to a Member shall be consistent with the applicable retail rate schedule established by the Cooperative as if there were no DG installation at the Member's premises, including any charges in the Cooperative's DG tariff.
- c) The Member shall pay all rates and charges so listed in the applicable rate tariff. In addition to all other charges, the Cooperative may bill the Member for any additional facilities charges as determined in the sole discretion of the Cooperative.

- d) Neither the Cooperative nor its Power Supplier is under any obligation to purchase power from a NQF. However, the Cooperative may, at its sole discretion, purchase power from an NQF.
- e) The type of metering to be used shall be specified at the sole discretion of the Cooperative, including an approved load profile meter is required which can be remotely read by the Cooperative through an approved communications link.
- f) The Member shall be subject to any market-related charges related to the Member's DG facility, including but not limited to Scheduling, Dispatching and Energy imbalance.
- g) No net metering shall be used.
- h) For power produced in excess of on-site requirements (out-flow), the Cooperative will purchase out-flow at avoided cost, as defined by the Cooperative's Tariff. The Cooperative shall bill the Member for the energy supplied by the Cooperative as metered by the billing meter during each billing period according to the Cooperative's applicable retail rate schedule. See Figure A below for an illustration.
- i) In addition to all other charges, the Cooperative may bill the Member for any additional facilities charges, billing charges, meter reading charges or customer service costs as determined by the Cooperative and appended to this Interconnection Agreement.
- j) The Cooperative shall not be required to make any purchases that will cause the Cooperative to no longer be in compliance with any applicable contracts or all-power contract requirements with its power supplier(s).

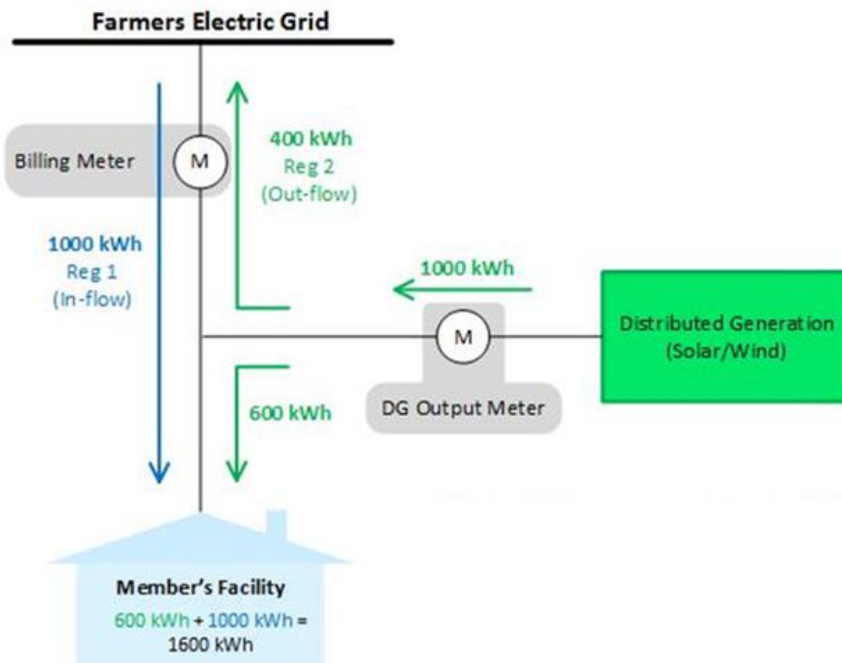


Figure 1. Illustration of Payment by Cooperative to Member of Avoided Cost for Out-flow and Charge by Cooperative to Member of Retail Rate for In-flow.

## **ARTICLE V. MEMBER'S RESPONSIBILITY PRIOR TO OPERATION**

### 1) Line Extension and Modifications to Cooperative Facilities

- a) 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.
- b) Notwithstanding the Cooperative's line extension policy, the Member shall pay in advance the full cost of the construction of any transmission, substation, distribution, transformation, metering, protective, or other facilities or equipment which, at the sole discretion of the Cooperative or its Power supplier, is required in the sole discretion of the Cooperative to serve the Member's DG facility.
- c) In the event it is necessary at the time of initial interconnection or at some future time for the Cooperative or its Power Supplier to modify electric delivery systems in order to serve the Member's DG facilities or purchase or continue to purchase the Member's output, or because the quality of the power provided by the Member's DG adversely affects the Cooperative or its Power Supplier's delivery system, the Member will reimburse the Cooperative and its Power Supplier for all costs of modifications required for the interconnection or continued of the Member's DG facilities.
- d) In the event the Cooperative alters facilities serving the DG facility such that metering equipment, transformers, or any other Member-owned equipment must be changed to continue receiving service, the full cost of the change will be borne by the Member.
- e) In all cases, the Member shall pay the full cost of the installation of a visible load break disconnect switch by and to the sole specification of the Cooperative. The switch will be readily accessible to Cooperative personnel and of a type that can be secured in an open position by a Cooperative lock.

### 2) Applicable Regulations

The DG facility shall be installed and operated by Member subject to and in accordance with the terms and conditions set forth in the Cooperative's rules, regulations, bylaws, rates and tariffs, as amended from time to time, and, if applicable, approved by the Cooperative's Board of Directors, which are incorporated herein by reference, 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, applicable ANSI standards, including ANSI C84.1 Range A, 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) Facilities 50 kW and smaller

- (1) Prior to interconnection, the Member must provide proof that equipment carries a warranty against breakdown and undue degradation for a minimum of five (5) years.
- (2) No liability insurance is required in addition to what the Member would have in the absence of the DG installation.

b) Facilities larger than 50 kW

- (1) Prior to interconnection, the Member must provide a certificate of insurance showing satisfactory liability insurance including contractual liability insurance covering indemnity agreements which insures 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.
- (2) The amount of such insurance coverage shall be not less than \$1,000,000 per occurrence. The amount of such coverage and the type of insurance coverage required shall be acceptable to the Cooperative and may be amended from time to time by the Cooperative at the sole discretion of the Cooperative.
- (3) The certificate shall provide that the insurance policy will not be changed or canceled during its term without thirty days' written notice to the Cooperative. The term of the insurance shall be coincident with the term of the interconnection contract or shall be specified to renew throughout the length of the interconnection contract.
- (4) The Member shall provide proof of such insurance to the Cooperative at least annually.

c) ISD-SG [independent school district solar generation] 1 MW and smaller

- (1) No liability insurance is required in addition to what the ISD-SG would have in the absence of the DG installation.

4) Initial Interconnection

- a) Upon satisfactory completion of the review process and execution of this Agreement, the Cooperative will begin installation of the interconnection of DG facilities. The interconnection will be completed as soon as practical after completion of the review process and execution of the necessary agreements and contracts. After completion of interconnection requirements and prior to initiation of service, the Cooperative will conduct a final inspection of the facilities and interconnection to the Cooperative's system. Upon satisfactory final inspection, the Cooperative will initiate service to the Member.
- b) The Cooperative's review process and final inspection is 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 or its Power Supplier shall not impose any liability on the Cooperative 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 Member's specific generating installation and do not warrant the efficiency, cost-effectiveness, safety, durability, or reliability of such DG installation.

## **ARTICLE VI. REFUSAL TO INTERCONNECT SERVICE OR DISCONNECTION OF INTERCONNECTION 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 issue which the Cooperative considered to be a basis for such action. Any disconnection may be without prior notice.

## **ARTICLE VII. OPERATION OF PARALLEL FACILITY**

The purpose of this section is to outline Members' responsibilities concerning Cooperative's operational requirements for DG facilities operated in parallel with the Cooperative's system and is not intended to be a complete listing of all operational, regulatory, safety and other requirements.

### 1) Ownership of facilities

- a) The Member shall 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.
- b) At its sole discretion, the Cooperative may locate Cooperative-owned metering equipment and transformers past the point of delivery.

### 2) Self-Protection of DG Facilities

- a) The Member shall furnish, install, operate and maintain in good order and repair all equipment necessary for the safe operation of DG facilities operated in parallel with the Cooperative system.
- b) The Member's equipment shall have capability to both establish and maintain synchronism with the Cooperative system and to automatically disconnect and isolate the DG facility from the Cooperative system.
- c) The Member's DG facility shall be designed, installed, and maintained to be self-protected from normal and abnormal conditions on the Cooperative system including, but not limited to, overvoltage, undervoltage, overcurrent, frequency deviation, and faults. Self-protection will be compatible with all applicable Cooperative protection arrangements and operating policies.
- d) Additional protective devices and functions may be required by the Cooperative when, in the sole judgment of the Cooperative, the DG facility installation or the Cooperative system characteristics so warrant.

### 3) Quality of service

- a) The Member's DG facility shall generate power at the nominal voltage of the Cooperative's system at the Member's delivery point as defined by ANSI C84.1 Range A.
- b) Member's DG installation shall generate power at a frequency within the tolerances as defined by IEEE 1547.
- c) Member's DG facility shall produce power at a minimum power factor of at least 95% or shall use power factor correction capacitors to ensure at least a 95% power factor.
- d) Member's DG facility shall be in accordance with the power quality limits specified in IEEE 519.
- e) The overall quality of the power provided by the Member's DG facility including, but not limited to, the effects of harmonic distortion, voltage regulation, voltage flicker, switching surges and power factor, will be such that the Cooperative system is not adversely affected in any manner.
- f) In the event that the adverse effects are caused in whole or in part by the Member's DG facility, the Member will correct the cause of such effects within 30 days of the initial adverse effect, and if applicable, reimburse the Cooperative for required correction. The Cooperative reserves the right to disconnect the Member's DG facility, if at its sole discretion, the Cooperative determines adverse effects exist which warrant immediate disconnection, including but not limited to circumstances described in Section VII.4., below.
- g) The Cooperative may perform an inspection on the DG system at any time.

### 4) Safety disconnect

- a) The Member shall install a visible load break disconnect switch at the Member's expense and to the Cooperative's specifications.
- b) The switch shall be located so as to be readily accessible to Cooperative personnel in a location acceptable to both the Member and Cooperative. Generally acceptable locations include: (1) the switch being located within 10 feet of the billing meter or (2) a placard located within 10 feet of the billing meter giving a description of the switch's location.
- c) The switch shall be of a type that can be secured in an open position by a lock owned by the Cooperative. If the Cooperative has locked the disconnect switch open, the Member shall not operate or close the disconnect switch.
- d) The Cooperative shall have the right to lock the switch open when, in the sole judgment of the Cooperative:
  - (1) It is necessary to maintain safe electrical operating or maintenance conditions,
  - (2) The Member's DG adversely affects the Cooperative system, or
  - (3) There is a system emergency or other abnormal operating condition warranting disconnection.
- e) The Cooperative reserves the right to operate the disconnect switch for the protection of the Cooperative system even if it affects the Member's DG facility. In the event the Cooperative opens or closes the disconnect switch:

- (1) The Cooperative shall not be responsible for energizing or restoration of parallel operation of the DG facility.
  - (2) The Cooperative will make reasonable efforts to notify the Member.
- f) The Member will not bypass the disconnect switch at any time for any reason.
  - g) Signage shall be placed by the Cooperative at the Member's expense and located at the disconnect indicating the purpose of the switch along with contact names and numbers of both the Member and the Cooperative.
  - h) Members with DG facilities as defined in this Agreement which are solely for the purpose of emergency backup or peak shaving without intent to export power shall not operate their DG facilities at any time unless visibly disconnected from the Cooperative system. At its sole discretion, the Cooperative may require Member to install at his or her own expense an interlocking switch for the purpose of insuring the Member's facilities do not operate in parallel with the Cooperative's facilities.
  - i) Should the Cooperative lose power serving the Member's DG facilities for any reason, Members with DG facilities shall not operate their DG facilities unless visibly disconnected from the Cooperative system.

5) DG output meter

- a) For systems that plan to operate in parallel, a DG output meter is required. The Member shall install a meter socket at the Member's expense and to the Cooperative's specifications for the DG output meter.
- b) The meter socket shall be located so as to be readily accessible to Cooperative personnel in a location acceptable to both the Member and Cooperative. Generally acceptable locations include: (1) the meter socket being located between the DG output or inverter(s) and the safety disconnect switch or (2) between the safety disconnect switch and service panel for the residential or commercial load.
- c) A Cooperative owned meter will be provided for the DG output meter socket upon successful inspection of the system.
- d) The DG meter socket shall be wired according to the cooperative's specifications. Refer to Exhibit A.
- e) The Cooperative reserves the right to operate the DG output meter for the protection of the Cooperative system even if it affects the Member's DG facility. In the event the Cooperative opens or closes the DG output meter:
  - (1) The Cooperative shall not be responsible for energizing or restoration of parallel operation of the DG facility.
  - (2) The Cooperative will make reasonable efforts to notify the Member.
- f) The Member will not bypass the DG meter at any time for any reason.

6) Access

- a) In addition to all other right of the Cooperative, persons authorized by the Cooperative shall 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 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 keys, codes, or other convenient means to circumvent the barrier for full access for the above-mentioned reasons.

7) Liability for Injury and Damages and Indemnification

- (a) The Member assumes full responsibility for his or her DG facility and all electric energy furnished at and past the point of interconnection. The Member shall indemnify the Cooperative and its Power Supplier against and hold the Cooperative and its Power Supplier harmless from all claims for both injuries to persons, including death resulting therefrom, and damages to property 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) Neither the Cooperative nor its Power Supplier shall 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 or its Power Supplier including, but not limited to, acts of God or public enemy, sabotage 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 or her DG 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.
- d) MEMBER AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS COOPERATIVE AND ITS OWNERS, PARTNERS, MEMBERS, PARENTS, SUBSIDIARIES, DIVISIONS AND AFFILIATES AND THEIR OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS (COLLECTIVELY, THE "INDEMNITEES"), FROM AND AGAINST ANY AND ALL CLAIMS, SUITS, CAUSES OF ACTION, LIABILITY, DAMAGES, JUDGMENTS OR EXPENSES, INCLUDING, BUT NOT LIMITED TO, ATTORNEYS' FEES AND LITIGATION

COSTS, FOR PERSONAL INJURIES, (INCLUDING, BUT NOT LIMITED TO, DEATH) OR PROPERTY DAMAGE, SUFFERED BY ANY PERSON OR ORGANIZATION (INCLUDING EMPLOYEES OF MEMBER OR ITS SUBCONTRACTORS AND EMPLOYEES OF COOPERATIVE OR ITS SUBCONTRACTORS) ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR THE INTERCONNECTION, OPERATION, OR EXISTENCE OF ANY DISTRIBUTED ENERGY RESOURCE OR FACILITY OR THE PERFORMANCE OF MEMBER'S OBLIGATIONS UNDER THIS CONTRACT OR ANY CONTRACT WITH COOPERATIVE, EVEN IF CAUSED BY THE SOLE OR CONCURRENT NEGLIGENCE, GROSS NEGLIGENCE OR FAULT OF ANY INDEMNITEE, OR WHETHER BASED ON STRICT LIABILITY, WARRANTY, OR OTHERWISE. TO THE EXTENT THAT THE LAWS OF THE GOVERNING JURISDICTION PROHIBIT OR DECLARE UNENFORCEABLE THIS INDEMNIFICATION AS IT APPLIES TO ANY INDEMNITEES' OWN NEGLIGENCE OR FAULT, THEN THIS INDEMNIFICATION SHALL BE INTERPRETED TO OBSERVE SUCH PROHIBITION OR DECLARATION BUT ONLY TO THE EXTENT NECESSARY TO CAUSE IT TO BE CONSISTENT WITH LAWS OF SAID GOVERNING JURISDICTION AND TO CAUSE THE MAXIMUM INDEMNIFICATION OF INDEMNITEES AS ALLOWED THEREUNDER.

- e) Member further agrees that Cooperative shall have the exclusive right and sole authority to select attorneys of its choosing to represent its (their) interest in any matter contemplated by the preceding indemnification provision. Member shall also pay any and all reasonable attorneys' fees and litigation costs associated with the services performed by the attorneys chosen by Cooperative.

#### 8) Metering/Monitoring

- a) The Cooperative shall specify, install, and own all metering equipment.
  - (1) A meter is required on the output of all DG energy sources. These meters are referred to as DG output meters (refer to the sample one-line diagram in Exhibit A of this document). These meters will be provided and owned by the Cooperative.
  - (2) A Cooperative billing meter will be in place that is capable of measuring in-flow and out-flow. Out-flow through the Cooperative billing meter will be purchased by the Cooperative at avoided cost.
- b) The meter shall be read at a time or times of month determined at the Cooperative's sole discretion for acquiring metering data. The Member shall provide the Cooperative an approved communications link at the Member's cost for this purpose if so requested by the Cooperative. The type of communications link and metering equipment measuring purchase of power by the Cooperative shall be installed and specified at the sole discretion of the Cooperative.
- c) The Cooperative may, at its sole discretion, require the Member to pay the Cooperative in advance for metering and monitoring equipment and installation expense.
- 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.

9) 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.
- c) Any change in the operating characteristics of the DG facility including, but not limited to, size of generator, total facility capacity, nature of facility, fuel source, site change, hours of operation, or type used, may require a new application process, including, but not limited to, application form, application fee, DG plan and DG plan review by the Cooperative.

10) Testing and Record Keeping

- a) 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, relay and breaker trip timing and shall include procedures to functionally test all protective elements of the system. The Cooperative may witness the testing.
- b) The Member will maintain records of all maintenance activities, which the Cooperative may review at reasonable times.

11) Disconnection of Service

The Cooperative may, at its sole discretion, discontinue the interconnection of DG installations due to reasons such as safety concerns, reliability issues, power quality issues, breach of interconnection contract or any other reasonable issue.

12) Compliance with Laws, Rules and Tariffs

The DG installation owned and installed by the Member 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, as amended from time to time, and, if applicable, approved by the Cooperative's board of directors, which are incorporated herein by reference, 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, Electric Reliability Council of Texas (ERCOT) Independent System Operator (ISO) directives and ERCOT guidelines, and in accordance with industry standard prudent engineering practices.

## **ARTICLE VIII. CONFIDENTIALITY**

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

## **ARTICLE IX. EFFECTIVE TERM AND TERMINATION**

This Agreement becomes effective when executed by both Parties (the “Effective Date”) and shall continue in effect until terminated. This agreement may be terminated as follows: (a) Member may terminate this Agreement at any time by giving the Cooperative sixty (60) days' written notice; (b) Cooperative may terminate upon failure by the Member 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; (d) Cooperative may terminate by giving Member 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.

## **ARTICLE X. VENUE**

Venue for any dispute arising under this Agreement lies exclusively in the Texas State Court of Hunt County, Texas.

## **ARTICLE XI. 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.

## **ARTICLE XII. ENTIRETY OF AGREEMENT**

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 Member application, or other written information provided by the Member 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.

### **ARTICLE XIII. 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 God, acts of war, public disorder, rebellion or insurrection; floods, hurricanes, earthquakes, lightning, 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.

### **ARTICLE XIV. ASSIGNMENT OF AGREEMENT**

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

### **ARTICLE XV. 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.

### **ARTICLE XVI. 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.

### **ARTICLE XVII. NOTICES**

Notices given under this Agreement are deemed to have been duly delivered if hand delivered, sent by facsimile machine with printed confirmation, or sent by United States certified mail, return receipt requested and received, postage prepaid, to:



(a) If to Cooperative:

Renewable Energy Engineer  
Farmers Electric Cooperative  
2000 Interstate 30 East  
Greenville, Texas 75402  
Email: DGInterconnection@farmerselectric.coop

(b) If to Member:

---

---

---

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

#### **ARTICLE XVIII. LIMITATIONS**

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 Cooperative's Power Supplier. The obligations herein assumed are solely for the use and benefit of the Parties and the Cooperative's Power Supplier. This Agreement may not be assigned by the Member without the prior written consent of the Cooperative as specified herein. 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.

**[signature page follows]**

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

FARMERS ELECTRIC COOPERATIVE:

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

MEMBER:

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

## Farmers Electric Application for Operation of Customer-Owned Generation

**This application should be completed as soon as possible and returned to a Cooperative representative 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 interconnection. Every effort should be made to supply as much information as possible.*

### PART 1

#### Member/Applicant Information

Member: \_\_\_\_\_

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

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

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

Phone Number: \_\_\_\_\_ FEC Account #: \_\_\_\_\_

Ownership and Possession		
Is the owner of the system the Member/Applicant listed above?	Yes	No
Is the owner of the system also the owner of the property where the renewable system is located?	Yes	No
If <b>NO</b> , then who is the owner of the property?		
Legal name		
Type of Entity		
DBA (if applicable)		
The member name shown on the electric bill is the name Farmers Electric Cooperative would prefer to use for the Interconnection Agreement. Is the owner of the renewable system (listed above) the same as on the electric bill?	Yes	No
If No, then what is the relationship between the Member's name (on electric bill) and the owner of the renewable system?		

**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** (check if 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)

If DG Owner/Operator does not plan on connecting to the grid, the system will be operating in isolated mode. If DG Owner/Operator plans to connect (or stay connected) to the grid, the system will be paralleling. If DG Owner/Operator intends to generate more than total site load, the system is exporting power.

Isolated \_\_\_\_\_ Paralleling \_\_\_\_\_ Power Export \_\_\_\_\_

If exporting Power, what is the maximum amount expected? \_\_\_\_\_

Adding equipment to an existing system (Yes or No): \_\_\_\_\_

*If YES, include specifications of existing system in the "Description of Proposed Installation and Operation" on the next page (type of system, rated power of existing system, etc.).*

## Description of Proposed Installation and Operation

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

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

### PART 2 Equipment Details

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

-----

#### BATTERY EQUIPMENT

(Skip if batteries are not incorporated in your DG system.)

Number of Batteries \_\_\_\_\_

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

Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes (A): \_\_\_\_\_

Total Rated Ampere Hours (Ah): \_\_\_\_\_ Total Rated Kilowatt-Hours (kWh): \_\_\_\_\_

**SOLAR EQUIPMENT**

**Inverter Information**

Quantity: \_\_\_\_\_ Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Maximum AC Power Output (watts): \_\_\_\_\_

Rated Power Factor (%): \_\_\_\_\_ Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_

Inverter Type (ferroresonant, step, pulse-width modulation, etc.): \_\_\_\_\_

Harmonic Distortion: Maximum Single Harmonic (%) \_\_\_\_\_

Maximum Total Harmonic (%) \_\_\_\_\_

UL – 1741 Certified (Yes or No): \_\_\_\_\_

Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

**Solar Panel Information**

Quantity: \_\_\_\_\_ Power Rating (watts): \_\_\_\_\_

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

-----

**WIND EQUIPMENT**

**Inverter Information**

Quantity: \_\_\_\_\_ Power Rating (watts): \_\_\_\_\_

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

Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_

Single or Three Phase: \_\_\_\_\_ UL-1741 Certified (Yes or No): \_\_\_\_\_

**Wind Turbine Information**

Quantity: \_\_\_\_\_ Power Rating (watts): \_\_\_\_\_

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

\* FOR DG SYSTEMS OTHER THAN WIND AND SOLAR CONTACT FARMERS ELECTRIC COOPERATIVE

### Part 3

#### Layout & One-Line Sketch and Placards

Farmers Electric Cooperative requires a visible, lockable, labeled AC disconnect (“VLLD”) for interconnection. The AC disconnect must have a visual break (with external handle) that is appropriate to the voltage level, be accessible to Cooperative personnel, and is capable of being locked in the open position. The Cooperative requests the VLLD be located on an exterior wall and within ten feet from the Cooperative’s billing meter; only under approved exception should it be located elsewhere. If the VLLD is more than ten feet from the Cooperative meter, then the Cooperative requires a site directory placard (indicating the location of the VLLD) be placed on the customer’s equipment beside the Cooperative’s meter. Note that a second meter (provided by the Cooperative) is required at the DG facility for the purpose of metering the output of the DG facility (see the example layout sketch and one-line diagram below).

Along with Exhibit A, the Cooperative requires a sketch depicting the physical layout (layout sketch) and one-line diagram be submitted with the interconnection application. The one-line diagram shows the sequence of the Cooperative meters, the VLLD and the generation equipment. The layout sketch is an overhead view of the physical layout between the Cooperative meter, the VLLD and the distance between the two. Generic examples of these sketches are provided at the end of this application for guideline purposes.

Goal of Layout Sketch	Yes	No
Did you identify the address on the layout sketch?		
Did you identify the location of the Cooperative Billing meter, the DG Output meter, the Visible, Lockable, Labeled, Disconnect ( <i>VLLD</i> ), and the distance between the two?		
Does the layout sketch have the words “Visible, Lockable, Labeled, Disconnect” <b>written on the sketch</b> ?		
Is the VLLD located within ten feet of the Cooperative meter?		
If No, then did you provide placard proofs that will be used at or near the Cooperative meter base showing the location of the VLLD?		

Goal of One-Line Diagram	Yes	No
Did you identify the address on the one-line diagram?		
Did you identify the location of the Cooperative Billing meter, the DG Output meter, the <i>VLLD</i> , and the generation equipment?		
Does the one-line diagram have the words <b>written on the sketch</b> that show the location of the Cooperative Billing meter, the DG Output meter, the <i>VLLD</i> , and the generation equipment?		

## CAUTION OR WARNING PLACARD LANGUAGE

### Part A – Labeling for the Placard on Visible Disconnect

Please indicate the placard warning language that will be utilized on the VLLD: *(or attached separately)*

Examples:

**CAUTION**  
Solar Generation  
Utility AC Disconnect

**CAUTION**  
POWER TO THIS SERVICE  
IS ALSO SUPPLIED FROM  
ON-SITE GENERATION AC  
SYSTEM DISCONNECT

**WARNING**  
Wind Generation  
Utility AC Disconnect

### Part B – Directory Warning Providing Visible Disconnect Location Language

Please indicate the placard warning language that will be utilized at the Cooperative meter if the VLLD is not located within ten feet of the Cooperative meter: *(or attach separately)*

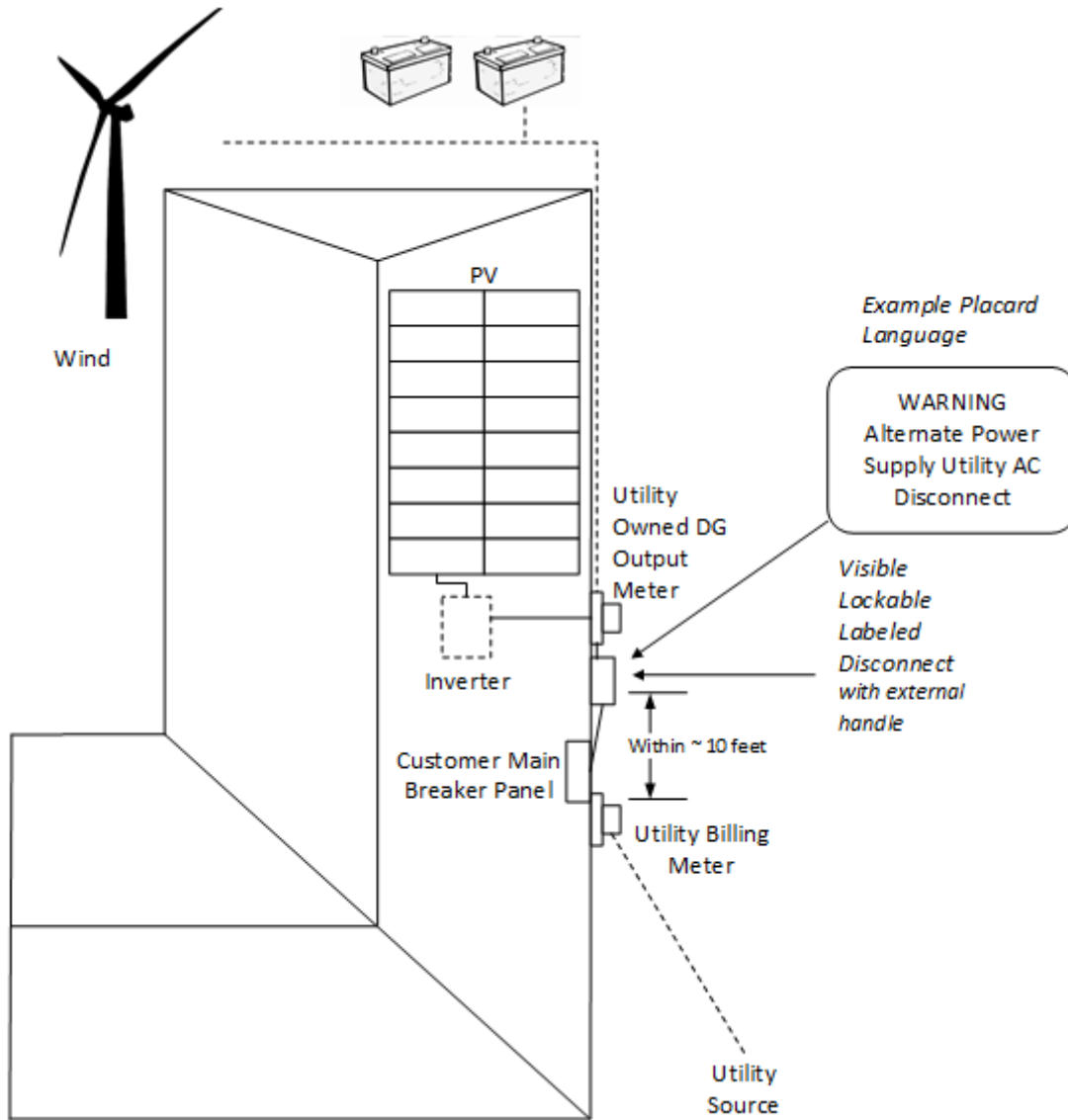
Examples:

**CAUTION**  
POWER TO THIS SERVICE IS ALSO  
SUPPLIED FROM ON-SITE  
GENERATION AC SYSTEM  
DISCONNECT IS LOCATED ON SOUTH  
WALL OF DETACHED GARAGE

**WARNING**  
POWER TO THIS SERVICE IS ALSO  
SUPPLIED FROM ON-SITE  
GENERATION AC SYSTEM  
DISCONNECT IS LOCATED ON WEST  
WALL OF THIS STRUCTURE

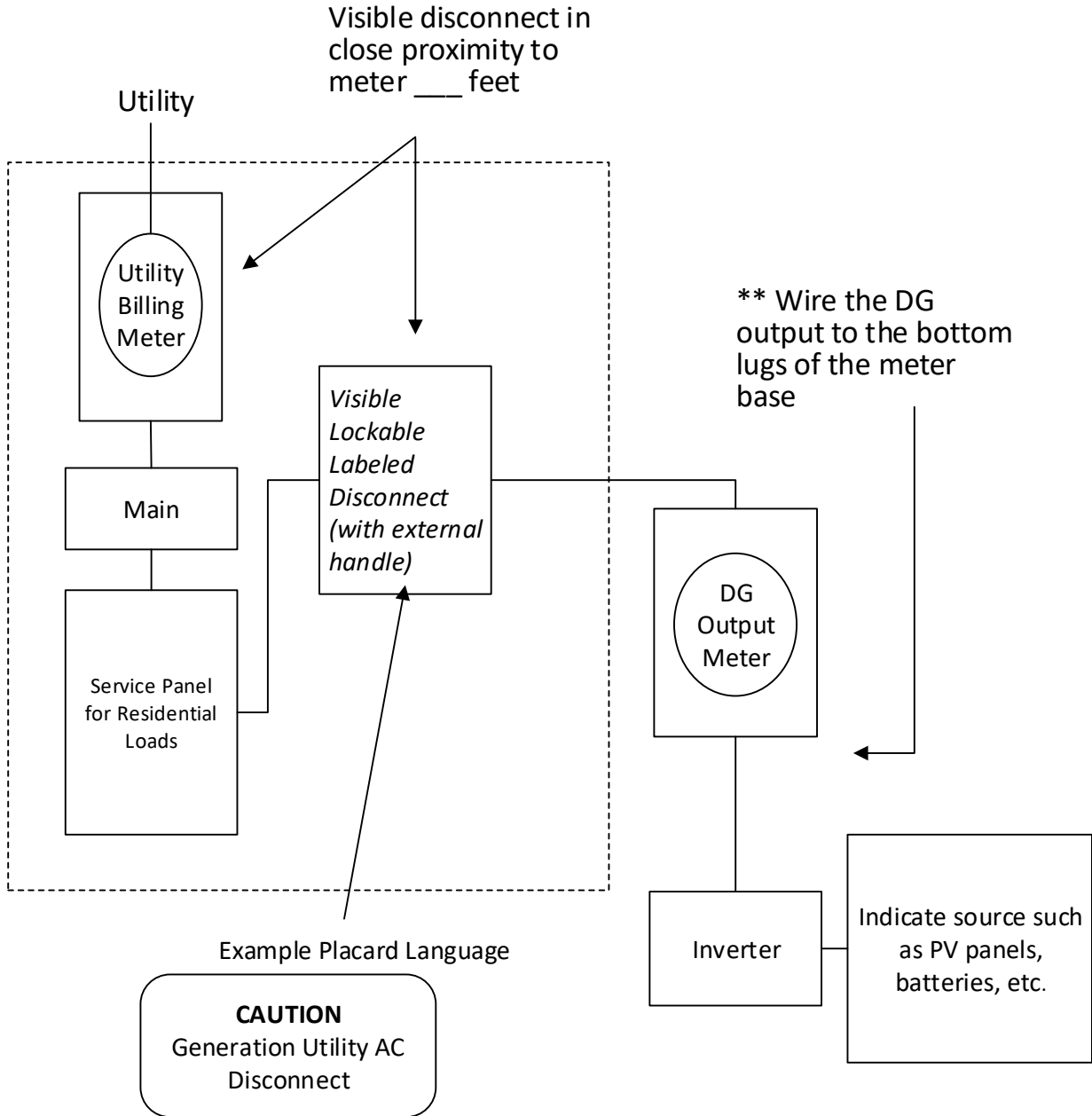


# Sample Layout Sketch (Solar or Wind)



Address:  
City-Zip:

# Sample One-Line Diagram (Solar or Wind)



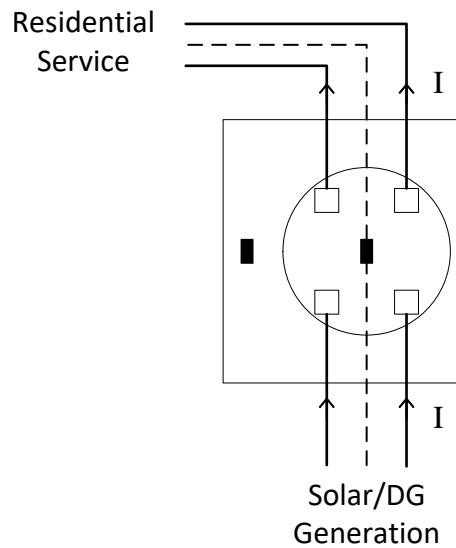
Address:

City-Zip:

## DG Output Meter Wiring Requirements

When installing the DG output meter base, Farmers Electric requires the DG output conductors wired to the bottom lugs of the meter base. This information is mainly for the electrician that is installing the system. The system will not be approved if the meter base is not wired in this fashion. Farmers Electric will provide a meter upon inspection.

Refer to this reference drawing:



## MEMBER CERTIFICATION AND AGREEMENT

The Member certifies that, to the best of his/her knowledge, the information provided in this Application is true. The Member agrees to provide the Cooperative with any additional information required to complete the interconnection. The Member shall operate his/her equipment within the guidelines set forth by the Cooperative. The Member further agrees to assign the energy generated by your renewable energy Distributed Generation system to Cooperative and to relinquish in favor of Cooperative any claims to any Renewable Energy Credits (RECs) related to the energy production associated with the equipment made part of this agreement.

---

Applicant

Date

Once this document is submitted to the proper Cooperative contact and the system is constructed, an inspection will be scheduled. If the system is approved for operation, a Permission to Operate (PTO) document will be sent to the member. The renewable energy system should not be operated until the PTO is received.

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

Cooperative contact: Ryan Landis  
Title: Engineer  
Address: 2000 IH-30 East  
Greenville, TX 75402  
Phone: 903-543-0510  
Email: [rlandis@farmerselectric.coop](mailto:rlandis@farmerselectric.coop)