

415. SERVICE RULES AND REGULATIONS

Small Power Production and Cogeneration Under 1000 kW

Small Power Production and Cogeneration

This Section 415, and Section VI, Sheet Nos. 14-18, of the tariff apply to the interconnection and parallel operation of all qualifying power generating installations having a design capacity of 999 kilowatts or less as well as to electric utility service to such generating installations. If any part of these sections shall be in conflict with any other provision of this tariff, these sections shall control. By agreement, the Cooperative and Producer may establish additional or different terms, conditions, or rates for the sale or purchase of electricity.

Obtaining Interconnection

Any person owning or operating a qualifying power generating installation (hereafter "Producer") and desiring to interconnect with the Cooperative's system shall:

1. Comply with Tariff

Apply for interconnection, provide an easement satisfactory to the Cooperative, and otherwise comply with the tariff of the Cooperative.

2. Provide Information

At least thirty (30) days in advance of interconnection, Producer shall make application and provide technical information for the generating installation and its interconnection with the Cooperative's system. Producer shall also provide such additional information as may be required by the Cooperative.

In the event Producer's installation involves the use of non-standard equipment or design techniques, the Cooperative may require such installation be approved by a registered professional engineer.

Any review or acceptance of such technical information 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.

The Cooperative may perform studies, as needed and as determined in the sole discretion of the Cooperative. The Cooperative may charge Producer fees that recover the costs of performing such studies. A study generally will not be required for an installation that: (1) has inverter(s) with a UL 1741 certification and meet

IEEE 1547 specifications; (2) does not export more than 15% of total load on the feeder; (3) does not contribute more than 25% of the maximum possible short circuit current of the feeder; and (4) has AC nameplate capacity of 10 kW or less.

3. Pay for Extension of Cooperative's Facilities

Comply with conditions for extension of the Cooperative's distribution system as may be determined by the Cooperative in accordance with the following extension policy:

If an extension of Cooperative's distribution system is required for sale or receipt of electric energy to or from a generating installation, whether or not in conjunction with another use, the Cooperative shall exercise prudent judgment in determining the conditions under which such extension will be made. Each case shall be viewed individually considering (1) cost to provide service, (2) longevity of the load, (3) annual load factor, (4) possibility of other loads developing along the proposed line extension, (5) longevity, capacity, and dependability of power to be received by the Cooperative, (6) anticipated annual revenue, and (7) compatibility with planned system improvements.

The Cooperative may require Producer to pay a contribution in aid-of-construction, advance for construction, or increased annual or monthly minimums and may require a contract term of up to five years.

4. Provide Liability Insurance

For Facilities Less than 50 kW AC: The Producer is not required to provide a certificate of insurance coverage to Cooperative. It is recommended, however, that the Producer carry liability insurance coverage which insures the Producer 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 Producer's generating equipment.

For Facilities 50 kW AC and Larger: Prior to installation and interconnection of the Producer's equipment with the Cooperative's system, the Producer must provide a certificate of insurance showing satisfactory liability insurance including contractual liability insurance covering indemnity obligations which insures the Producer 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 Producer's generating equipment. The amount of such insurance coverage shall be not less than \$2,000,000.00 per occurrence and name the Cooperative as an additional insured. This amount may be increased at the sole discretion of Cooperative if the nature of the project so requires. The certificate of insurance 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 at a minimum be for an initial term of one (1) year from the effective date of the Cooperative's "Agreement for

Interconnection and Parallel Operation of a Cogeneration or Small Power Production Installation; 999 kW or Less” and shall be kept in force and effect or shall be specified to renew during and throughout the length of any secondary term of said Cooperative form of agreement. The Cooperative reserves the right to request a Producer provide proof of such insurance at any time.

5. Sign Agreement

Sign and deliver to the Cooperative an “Agreement for Interconnection and Parallel Operation of a Cogeneration or Small Power Production Installation; 999 kW or Less,” the form of which has been approved by the Cooperative’s Board of Directors and is contained in these tariffs.

6. Complete Construction

Construct the power generating installation and install a disconnect switch and other protective equipment as may be required by the Cooperative to protect its personnel, facilities, and operations.

7. Comply with Laws

Comply with applicable Federal, state and local laws, ordinances and regulations applicable to the design and installation of power generating systems, including, but not limited to, ANSI standards, UL standards, IEEE standards, and the National Electrical Code (NEC).

8. Notify Cooperative

Notify the Cooperative in writing at least thirty (30) days in advance of energizing the small power generating installation and permit the Cooperative to inspect and test protective equipment.

9. 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.

The foregoing are conditions precedent to any obligation of the Cooperative to interconnect or provide any form of electric utility service.

Parallel Operation

1. Installation

The Producer shall own and be solely responsible for all expense, installation, maintenance and operation of the power generating installation at and beyond the point where Producer's conductors contact Cooperative's conductors. The Producer's generating installation shall be designed, installed, operated, and maintained in accordance with all applicable laws, codes, regulations and prudent engineering practice including with regard to parallel operation with the Cooperative's system.

## 2. Self-Protected Generating Installation

The Producer will furnish, install, operate and maintain in good order and repair all equipment necessary for the safe operation of the power generating installation in parallel with the Cooperative's electric installation in parallel with the Cooperative's electric distribution system. The equipment will have the capability to both establish and maintain synchronism with the Cooperative's system and to automatically disconnect and isolate the generating installation from the Cooperative's system in the event of an outage of the Cooperative's system or a malfunction of the power generating installation. For example, a power generating installation that is UL 1741 listed and meets the requirements of IEEE 1547 is designed to have such capabilities.

The Producer's power generating installation will also be designed, installed and maintained to be self-protected from normal and abnormal conditions in the Cooperative's electric distribution system. The conditions for which the power generating installation shall be self-protected shall include, but not be limited to, overvoltage, undervoltage, overcurrent, frequency deviation, and faults. The self-protection will be compatible with the Cooperative's system protection arrangements and operating policies. Specialized protective functions may be required by the Cooperative when, in the sole judgment of the Cooperative, the particular generating installation characteristics and/or distribution system characteristics so warrant.

The generation installation must have interrupting devices capable of interrupting the maximum available fault current, an interconnection 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 standalone capability). Facilities rated over 10 kW three-phase must also have reverse power sensing and either a ground over-voltage or a ground over-current trip depending on the grounding system. Grounding shall be done in accordance with UL 1741, IEEE 1547, and NEC Article 250.

## 3. Quality of Service

Producer's generating installation will generate at the nominal voltage of the Cooperative's electric distribution system at the Producer's delivery point plus or minus five percent (5%) at the nominal system frequency of 60 hz plus or minus one-half ( $\frac{1}{2}$ ) hz. 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 seven percent (97%) lagging or leading, the Producer will provide proper power factor correction (within three percent (3%) of unity) or reimburse the Cooperative for the costs of any necessary correction.

The overall quality of the power provided by Producer 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's electric distribution system is not adversely affected in any manner. In the event that adverse effects are caused in whole or in part by Producer's power generating installation, the Producer will correct the cause of such effects or reimburse the Cooperative for the cost of any required correction.

4. Safety Disconnect

The Producer, or at the Producer's option, the Cooperative, shall provide and install, at the Producer's expense, a visible break disconnect switch mounted separately from metering equipment that provides clear indication of the switch position. The disconnect switch will be located so as to be readily accessible to Cooperative personnel in a location approved by the Cooperative. It shall be the type of switch which can be secured in an open position by a Cooperative padlock. The Cooperative shall have the right to open and lock the switch open whenever, in the judgment of the Cooperative, (1) it is necessary to maintain safe electrical operating or maintenance conditions or for the maintenance and repair of the Cooperative electrical system, (2) Producer's installation adversely affects the Cooperative's electric system, including but not limited to unduly affecting its waveform or adversely affecting other Members, (3) there is a system emergency or other abnormal operating condition which warrants disconnection, (4) Producer's generating system is determined to be operating in a hazardous or unsafe manner, (5) Producer fails to comply with applicable codes, regulations and standards in effect at the time or its "Agreement for Interconnection and Parallel Operation of a Cogeneration or Small Power Production Installation; 999 kW or Less," including but not limited to maintaining liability insurance or reimbursing the Cooperative for costs as required by this tariff.

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 energization 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.

5. Access

Persons authorized by the Cooperative will have the right to enter the Producer's property for the purpose of operating or inspecting the disconnect switch or metering. Such entry onto the Producer's property may be without notice. If the

Producer erects or maintains locked gates or other barriers, the Producer will furnish the Cooperative with convenient means to circumvent the barrier for access to the disconnect switch and meter(s).

6. Modifications of Cooperative System

In the event that it is necessary at the time of initial interconnection or at some future time for the Cooperative to modify its electric distribution system in order to purchase or continue to purchase Producer's output, the Producer will reimburse the Cooperative for all just and reasonable costs of modifications which are allocable to the Producer's small power generating installation. The modifications may include, but are not limited to, special interconnection equipment, protective devices, control devices or upgrading of distribution system components.

7. Liability for Injury and Damages

Producer assumes full responsibility for electric energy furnished to him at and past the point of interconnection and will indemnify the Cooperative against and hold the Cooperative 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 Producer arising from electric power and energy delivered by Cooperative or in any way arising directly or indirectly from Producer's generating installation except (i) when the negligence of Cooperative or its agent or agents was the sole proximate cause of injuries, including death therefrom, to Producer or to employees of Producer or in the case of a residential Member/Producer, to all members of the household, and (ii) as to all other injuries and damages, to the extent that injuries or damages are proximately caused by or result in whole or in part from (a) any negligence of Cooperative or its agent(s) independent of and unrelated to the maintenance of Cooperative's facilities or any condition on Producer's premises or (b) the breach by Cooperative of any provision of any contract regarding purchase and/or sale of electrical energy or service between Cooperative and Producer.

The Cooperative shall not be liable for either direct or consequential damages resulting from failures, interruptions, or voltage and wave form fluctuations occasioned by causes reasonable beyond the control of the Cooperative, 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.



For claims resulting from failures, interruptions, or voltage and wave form fluctuations occasioned in whole or in part by the negligence of the Cooperative or its agent(s), the Cooperative shall be liable only for that portion of the damages arising from personal injury, death of persons, or costs of necessary repairs to or reasonable replacement of electrical equipment proximately caused by the negligent acts of the Cooperative or its agent(s). The Cooperative shall not be liable in any event for consequential damages.

8. Metering

The output of the Producer's generating installation will be measured by a meter or meters capable of measuring the electric energy delivered for consumption separately from the electric energy measured, received, and purchased by the Cooperative from the Producer, in intervals established by the Cooperative, using appropriate meters or meter configurations at the Cooperative's sole discretion, including a two-meter configuration. Any necessary meter(s) or meter modification in addition to or in place of one standard service meter will be installed, maintained, and operated by the Cooperative at the Producer's expense. A connection will be provided for the meter(s) at the Producer's expense in a location that is acceptable to both the Cooperative and the Producer. The Cooperative may, at its own expense, supply, install, and maintain metering to measure the output of the Producer's generating installation. The metered output of Producer's generating installation will be read by the Cooperative.

The meter(s) will, by comparison with accurate standards, be tested and calibrated as often as necessary. The Producer or the Cooperative may reasonably request such tests, and shall be given notice of not less than five (5) working days when such tests are to be made. Both the Producer and the Cooperative will have the right to be present at such tests. If a meter is found to be inaccurate, it shall be restored to an accurate condition or replaced. If the tests disclose that no unacceptable inaccuracies exist in the meter(s), then the party requesting the tests shall bear the expense of the tests. A report of the results of any tests shall be furnished promptly by the party making such tests to the other party. Any meter(s) registering a deviation of not more than two percent (2%) from normal shall be deemed accurate. The readings of any meter(s) which have been

inaccurate shall be corrected according to the percentage of inaccuracy as determined by the tests for a period of no more than ninety (90) days prior to the tests. If any meter fails to register for any period, the facility output during such period shall be estimated in the best manner possible as agreed upon by the Cooperative and the Producer.

9. Notice of Change in Installation

Producer will notify the Cooperative in writing fifteen (15) days in advance of making any change affecting the characteristics, performance, or protection of the generating installation. If it comes to the Cooperative's attention that the modification will create or has created conditions which may be unsafe or adversely affect the Cooperative's system then it shall notify Producer and Producer shall immediately correct such condition.

10. Insurance

Producer shall continue to maintain liability insurance as required by the Cooperative prior to interconnection and shall provide proof of such insurance to the Cooperative as specified on Sheet 20, Section IV of this tariff.

Sales to Producer

Producer's rate class shall be designated by the Cooperative in accordance with the availability and type of service provisions in its rate schedules for all service including Backup, Supplementary, Interruptible, and Maintenance.

Purchases from Producer

The Cooperative will purchase and receive from Producer, and Producer will sell and deliver exclusively to the Cooperative, the electrical output from the power generating installation that is measured and received by the Cooperative's electric distribution system.

1. Rate for Purchases and Related Cooperative Charges for Purchases

The Cooperative will pay Producer for all power purchased at the following rates:

- a. Capacity – No payment except for firm power by separate firm power contract between the Producer and the Cooperative.
- b. Energy – The Cooperative shall pay Producer for the electric energy measured, received, and purchased from Producer at the average per kWh cost for the preceding billing month of the electric energy purchased by the Cooperative from its non-Member wholesale electric energy provider(s), as calculated by the Cooperative. This calculation of the Cooperative's avoided energy costs shall not include any capacity, demand, customer, metering, transmission, fixed cost, or other charges from its wholesale electric energy provider(s) beyond the cost of purchased energy.

The Cooperative will credit the monthly amounts due for all output measured, received, and purchased from the Producer's generating installation against the monthly bill for service rendered to the Producer for the Producer's consumption. The Cooperative at its option may periodically render a check to the Producer whenever the cumulative balance of credits exceeds \$500.00, and the Cooperative shall within a reasonable period of time render a check to the Producer whenever the cumulative balance of credits exceeds \$1,000.00. The Cooperative at its option may also render a check at any time in its sole discretion.

The Cooperative will charge Producer as follows:

- a. Monthly Nameplate Charge – In addition to the minimum monthly bill requirements under the applicable service rate schedule(s) for consumption of electricity, a Producer will be invoiced and shall pay a Monthly Nameplate Charge of \$0.75 per month of nameplate alternating current kW generation capacity for the Producer's generation installation. The Monthly Nameplate Charge will apply each month regardless of whether in any particular electric energy was measured, received, and purchased by the Cooperative from Producer. Such capacity will be calculated by the Cooperative using the lesser of the combined alternating current nameplate capacity of the facilities or the sum of the inverter(s). In instances where additional facilities are installed, the Member must immediately inform the Cooperative.
- b. System Modification Charges – All costs for extension of the Cooperative's distribution system, modification of

the Cooperative's distribution system, meter installations, power factor or other power quality corrections, or other costs of the Cooperative to be reimbursed by the Producer are in addition to the foregoing Monthly Nameplate Charge.

2. Refusal to Purchase

The Cooperative may, at certain times and as operating conditions warrant, reasonably refuse to accept part or all of the output of the Producer's facility. Such refusal shall be based on system emergency constraints, special operating requirements, adverse effects of the Producer's facility on the Cooperative's system or violation by the Producer of the terms of the "Agreement for Interconnection and Parallel Operation of Cogeneration and Small Power Installations; 999 kW or less."

Definitions

1. Power Generating Installation, Generating Installation shall mean small power production or cogeneration facility which is a "qualifying facility" under Subpart B of the Federal Energy Regulatory Commission's Regulations under Section 201 of the Public Utility Regulatory Policies Act of 1978 including any generator and associated equipment, wiring, protective devices, or switches owned or operated by Producer.
2. Producer means any person, firm, corporation, partnership, or other entity owning or operating a power generating installation.