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18. GENERATING FACILITIES

A. Customer-owned generation and co-generation

It shall be the policy of the Cooperative in conformity with the requirements of law, to interconnect with, purchase electricity from, and sell electricity to generating facilities as defined in Federal Energy Regulatory Commission Rules and further defined in the Substantive Rules of the Public Utility Commission of Texas. Customer-owned generating installations shall be designed, constructed and operated in accordance with prudent engineering practices and shall not interfere with ongoing Cooperative operations. Generating installations will not be subsidized by other members and will be required to operate in a manner which does not degrade service to others. For generating installations having a designed capacity in excess of 100 kW, the terms of interconnection, parallel operation, and any sale or purchase of electricity shall be individually negotiated and approved by the Board of Directors. All agreements for generating installations shall be subject to provisions of Federal and State law, the Cooperative's wholesale power contract(s), Cooperative bylaws, and applicable policies of the Cooperative's power supplier(s).

This tariff applies to the interconnection and parallel operation of all power generating installations having a design capacity of 10,000 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. The Cooperative may, at its sole discretion, assign any customer-owned generation or co-generation to its power supplier(s). By agreement, the Cooperative and Producer may establish additional or different terms, conditions, or rates for the sale or purchase of electricity.

B. Obtaining interconnection

Any person wishing to own or operate a 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 tariffs of the Cooperative.

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(2) Provide information

At least 60 days in advance of interconnection, submit a plan showing the electrical design of the generating installation including equipment for 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 plan involves the use of non-standard equipment or design techniques, the Cooperative may require such plan to be approved by a registered professional engineer. 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.

(3) Pay pre-interconnection study fees

The Cooperative may conduct an interconnection service study, coordination study or system impact study prior to interconnection of a generating facility. In instances where such studies are deemed necessary, the scope of such studies shall be based on the characteristics of the particular generation facility to be interconnected and the Cooperative's utility system at the specific proposed location. By agreement between the Cooperative and Producer, studies related to interconnection of on-site distributed generation may be conducted by a qualified third party.

- a) In certain instances, particularly generation facilities of less than 50 kW, a pre-interconnection study and fees may be waived.
- b) A pre-interconnection study for distributed generation units up to 500 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 may be required. The customer shall receive an estimate of the study cost and may be required to enter into a binding agreement to pay or pre-pay estimated study costs before the Cooperative initiates the study.
- c) A pre-interconnection study for distributed generation units of over 500 kW will be required. The customer shall receive an estimate of the study cost and shall be required to enter into a binding agreement to pay or pre-pay estimated study costs before the Cooperative initiates the study.

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The conduct of any such pre-interconnection study shall take no more than four weeks; and the Cooperative shall prepare written reports of the study findings and make them available to the customer; and 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 utility system.

(4) 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 any 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 extensions 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. In no case shall Producer be charged less than standard line extension policy rates and standard line extension practices shall be maintained.

The Cooperative may require Producer to pay a contribution in aid-of-construction, in advance for construction.

(5) Provide liability insurance

Furnish a certificate from Producer's insurance carrier showing satisfactory liability insurance including contractual liability insurance covering indemnity agreements which insures 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, operating and maintenance of the Producer's generating equipment. The Cooperative may require additional coverage over and above standard policy terms. As well, the Cooperative may require that Producer's insurance policy certificate specifically list the Cooperative on the policy as an "additional insured" or "named insured".

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(6) Sign Contract

Sign and deliver to the Cooperative an Agreement for Interconnection and Parallel Operation of a Customer-owned Generation or Co-generation Installation; the form of which is contained in this tariff.

(7) Complete Construction

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

(8) Comply with laws

Comply with applicable Federal, State, and local laws, ordinances and regulations applicable to power generating installations.

(9) Notify Cooperative

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

(10) 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 operations, it shall notify Producer and Producer shall not interconnect and/or initiate parallel operation until such conditions are corrected and Producer has given 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.

C. Parallel operation

(1) Installation

With the exception of only the Cooperative's meter(s), the Producer shall own and be solely responsible for all the expense, installation, maintenance and operation of the

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power generating installation at and beyond the point where Producer's conductors contact Cooperative's conductors. The Producer's generating installations shall be designed and installed in accordance with applicable codes, regulations and prudent engineering practice.

(2) Self-protected generating installation

The Producer will furnish, install, operate and maintain the good order and repair all equipment necessary for the safe operation of the power generating 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 any outage of the Cooperative's system or a malfunction of the power generating installation. 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, flicker, frequency deviation, harmonics, and faults and line clearing. 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.

(3) Quality of service

Producer's generating installation will generate power 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 (1/2) Hz. Producer shall not cause voltage flicker in excess of 3.0% as measured at the point of common coupling. Producer shall not cause total harmonic distortion (THD) in excess of 5.0% of the fundamental 60 Hz frequency nor 3.0% of the fundamental frequency for any individual harmonic when measured at the point of common coupling. 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 (90%) lagging or leading, the Producer will provide proper power factor correction (within ten percent (10%) of unity) or reimburse the Cooperative for the cost of any necessary correction.

The Producer shall automatically disconnect from the Cooperative system within ten cycles if the voltage on one or more phases falls below 70% of nominal voltage on

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the Cooperative system serving the producer premises. This disconnect timing also ensures that the generator is disconnected from the utility system prior to automatic re-close of breakers. The producer may reconnect when the system voltage and frequency return to normal range and the system is stabilized.

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 affects 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. If adverse affects are not promptly corrected, Producer's facility may be isolated from the Cooperative's electrical system.

(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. The disconnect switch will be located so as to be readily accessible to Cooperative personnel in a location acceptable to both the Producer and 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 lock the switch open, whenever, in the judgment of the Cooperative: (1) it is necessary to maintain safe electrical operating or maintenance conditions, (2) the Producer's power generating installation adversely affects the Cooperative's electric distribution system, or (3) there is a system emergency or other abnormal operating condition which warrants disconnection.

The Cooperative reserves the right to operate the disconnect switch 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 at any time for any reason.

The Producer shall not bypass open disconnect switch or remove Cooperative's padlock from disconnect switch at any time for any reason.

(5) Communications

For larger or unique facilities, the Cooperative may require that a communication channel be provided by the customer to provide communication between the

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Cooperative and the customer's facility. The channel may be a leased telephone circuit or other mutually agreed upon medium.

(6) 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).

(7) 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 modification which are allocable to the Producer's power generating installation. The modifications may include, but are not limited to, special interconnection equipment, protective devices, and control devices or upgrading of distribution system components.

(8) 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 the Cooperative or in any way arising directly or indirectly from Producer's generating installation.

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 reasonably 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 order bona fide adverse legal proceeding or action, or any order of any commission, tribunal or governmental authority having jurisdiction.

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(9) Metering

At the Producer's option, if the output of the Producer's generating installation is to be purchased by the Cooperative, it will be measured by meter(s), provided by the Cooperative and installed in accordance with Cooperative's specifications, as required for the metering option chosen by the Producer. Available metering and billing options are as follows:

- a) Standard Metering Option: For consumers with generating facilities rated 10 kW or less, parallel operation with interconnection through a single meter that measures net consumption;
 - 1.) Net consumption for a given billing period will be billed in accordance with the standard tariff applicable to the consumer class to which the user of the facility's output belongs;
 - 2.) Net production may not be metered and will not be purchased by the Cooperative and therefore there will be no additional consumer charge imposed on the facility.

- b) Net Metering Option: For consumers with "renewable energy" generating facilities rated 100 kW or less, parallel operation with interconnection through two meters, or one meter with two or more internal registers, with one measuring net consumption and the other measuring net production:
 - 1.) Net consumption for a given billing period will be billed in accordance with the standard tariff applicable to the consumer class to which the user of the facility's output belongs; or
 - 2.) Net production for a given billing period will be purchased at the standard rate provided for in Section E.(1) of this tariff, therefore there will be an additional consumer charge imposed on the facility.

- c) Net Billing Option: Interconnection through two meters, or one meter with two or more internal registers, with one measuring net consumption by the consumer and the other measuring net production by the generating facility:
 - 1.) All consumption by the consumer for a given billing period will be billed in accordance with the standard tariff applicable to the consumer class to which the consumer would belong in the absence of the facility; and

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- 2.) All production by the facility for a given billing period will be purchased at the standard rate provided for in Section E.(1) of the tariff, therefore there will be an additional consumer charge imposed on the facility.
- d) Net Billing Option II: Interconnection through two meters with the meters being separated by no more than 200 feet in distance, with one measuring all consumption by the consumer and the other measuring all production by the generating facility:
- 1.) All consumption by the consumer for a given billing period will be billed in accordance with the standard tariff applicable to the consumer class to which the consumer would belong in the absence of the facility; and
 - 2.) All production by the facility for a given billing period will be purchased at the standard rate provided for in Section E.(1) of the tariff, therefore there will be an additional consumer charge imposed on the facility.
 - 3.) Interconnection under this option will be treated as one consumer account and will not incur a charge for a second consumer account.
- e) Separate Billing: Interconnection through two meters with the meters being separated by more than 200 feet in distance will be treated as two separate consumer accounts and will incur a charge for a second consumer account. Consumer's account with customer owned generation will be treated and billed in accordance with options a) through d) above.

Any necessary meter(s) or meter modification in addition to one standard service meter(s) or meter modification in addition to 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 load research metering for the purpose of monitoring and evaluating the Producer's generating installation.

The metered output of Producer's generating installation will be read at least monthly 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

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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 test shall be furnished promptly by the party making such test 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 test. 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.

(10) 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.

(11) Insurance

Producer shall continue to maintain insurance as required by the Cooperative prior to the interconnection and shall provide proof of such insurance to the Cooperative at least annually.

D. 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 schedules for all service including Backup, Supplementary, Interruptible, and Maintenance, if available.

E. Purchases from Producer

(1) Rate

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

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- a) Capacity – No payment except by separate firm power contract between the Producer and Cooperative.
- b) Energy – The metered kWh output from the Producer will be purchased at the Cooperative’s avoided cost of energy as calculated from the Cooperative’s most recent wholesale power bill.

In the event that the Producer exercises the option to sell power to the Cooperative, there will be, in addition to the minimum monthly bill requirements under the applicable service rate schedule(s), a consumer service charge of \$15.00 per month for metering and billing.

(2) Methodology of purchases from Producer

The Cooperative shall read Producer’s meter(s) at least monthly. Purchases from Producer for any month will be credited the following month to offset Producer’s bill and will be credited according to Cooperative’s monthly cost of energy for the month of actual production by Producer’s facility.

Credited production costs will be established by summing the monthly total energy and fuel costs then dividing by the total energy purchased (“avoided cost of energy”) as calculated from the Cooperative’s most recent wholesale power bill. The credited production cost will be rounded to the fifth significant digit (ie, \$0.0000x).

(3) 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, and 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 Customer-owned Generation and Co-generation.

(4) Refund of sale of Producer’s net generation

The Cooperative will credit the amount of Producer’s net generation to Producer’s member account each month that net generation occurs. Cooperative will, at Producer’s request, pay to Producer via standard company check proceeds from generation when consumer’s credit reaches a minimum of \$100.00 aggregate. Cooperative shall be under no obligation to provide payment for consumer’s credit of less than \$100.00 aggregate.

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F. Definitions

- (1) Power Generating Installation, Generating Installation shall mean power production or co-generation facility as defined in Federal Energy Regulatory Commission Rules and further defined in the Substantive Rules of the Public Utility Commission of Texas 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 that is a member of the Cooperative.