

BANDERA ELECTRIC COOPERATIVE, INC. Tariff for Electric Service		Section III	Sheet No. 1.0
<u>SECTION TITLE:</u> SERVICE RULES AND REGULATIONS Part 3 – Electric Service APPLICABLE TO ALL AREAS SERVED		ADOPTED DATE: March 22, 2017 REPLACING REVISION OF: February 24, 2016 EFFECTIVE DATE: April 5, 2017	

340. Small Power Production

Sections 340-345 of this tariff apply to the interconnection and parallel operation of all small power generating installations. All installations must meet all system performance requirements as outlined in the Cooperative’s service rules and regulations and the Cooperative’s “*Procedures and Guidelines for Member-Owned Distributed Generation*” (DG Manual). 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.

341. Obtaining Interconnection

Any person owning or operating a small power generating installation (hereafter “Producer”) and desiring to interconnect with the Cooperative’s system shall:

341.1 Comply with Tariff

Become a Member of the Cooperative, provide an easement satisfactory to the Cooperative if required, and otherwise comply with the tariff of the Cooperative.

341.2 Apply for Interconnection, Pay Application Fee, and Provide Information

At least sixty (60) days in advance of the desired interconnection date, Producer shall submit the small power generator interconnection application including payment of any non-refundable application fee and provide a general plan of the proposed generation installation showing the electrical design of the generating installation including all major equipment for interconnection with the Cooperative’s system as required by and detailed in the DG Manual. In the case of multiple facilities, a separate application including required application fees shall be submitted by the Producer for each interconnection

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point desired. Producer shall also provide such additional information as may be reasonably required and requested by the Cooperative to evaluate the installation plan.

For new installations, a non-refundable application fee (see Section 703.6) will be required to be paid by the Producer before the Cooperative will consider the application, plus engineering review fees established on a case-by-case basis. A non-refundable Member Request Fee will be required to be paid by the Applicant taking over an existing installation. (see Section 701.6)

The Cooperative may, at its sole discretion, waive the required application fee and other provisions of this tariff in the case of a proposed generating installation which is planned (i) to be operated in parallel with the Cooperative’s system; (ii) with no intention to export power to the Cooperative; and (iii) that are of standard design and intended entirely as an emergency or back-up power supply for a facility.

In the event Producer’s plan involves the use of non-standard equipment or design techniques the Cooperative may require the Producer to obtain approval of the proposed generating installation plan by a professional engineer licensed in the state of Texas. Any review or acceptance of such plan by the Cooperative shall not impose any liability on the Cooperative and does not guarantee the adequacy of Producer’s equipment to perform its intended function. The Cooperative disclaims any expertise or special knowledge relating to the design or performance of generating installations and does not warrant the efficiency, cost effectiveness, safety, durability or reliability of generating installations.

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341.3 Pay for Interconnection Study and Extension/Upgrade of Cooperative’s Facilities

In cases where the generation installation is to be operated in parallel with the Cooperative’s system and is intended to export power to the Cooperative’s system; the Cooperative at its sole discretion may conduct a full interconnection study to determine the impact of the generating facility on the Cooperative’s system as described in the DG Manual. The Producer will be required to reimburse the Cooperative for the full amount of the interconnection study in addition to any application fee(s). The Cooperative will bill the Producer for the exact cost of the study on a biweekly basis. The Cooperative will complete the interconnection study within sixty (60) days following receipt of a completed application and shall provide a copy of the study to the Producer. The Cooperative will undertake any interconnection study in the order in which the completed applications have been received by the Cooperative on a non-discriminatory basis.

Should the interconnection study indicate that portions of the Cooperative’s electrical power system will require extension or upgrade as a result of the parallel operation of the generation installation, the Cooperative will require the Producer execute a system upgrade contract covering the full costs of all upgrades or extensions of the Cooperative’s transmission, substation, distribution, transformation, metering, protective, or other facilities or equipment which at the sole discretion of the Cooperative is required to serve the generating installation before the Cooperative will interconnect the generating installation.

In the event it is necessary at some future time for the Cooperative in its sole discretion to modify its electric delivery systems in order to serve the Producer’s generating installation and/or purchase or continue to purchase the Producer’s output, or because the

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quality of the power provided by the Producer’s generating installation adversely affects the Cooperative’s delivery system, or the Cooperative desires to change primary voltage or make other change in its electric delivery system, the Producer will reimburse the Cooperative for all costs necessary to modify or change out any electrical equipment required to continue to safely establish the interconnection of the Producer’s generating installation with the Cooperative’s system after the electric delivery system modification is completed.

341.4 Facility Charge

The Producer may also be responsible for paying a facility charge as determined at the sole discretion of the Cooperative to recover any additional operation and maintenance expenses incurred by the Cooperative as a result of the Producer’s generating installation. The facility charge will be determined during the interconnection study on a non-discriminatory case-by-case basis.

341.5 Provide Liability Insurance and Waiver of Subrogation

When required by law, Producer, at Producer’s own expense, shall carry and maintain Worker’s Compensation insurance covering Producer’s employees. In such cases, Producer, at Producer’s own expense, shall be required to carry Employer’s Liability insurance. These coverages are to provide for the payment to Producer’s employees and/or their dependents Worker’s Compensation benefits, including Occupational Disease benefits in accordance with the law of the State of Texas. Producer hereby waives all rights of subrogation that Producer’s insurers may have against the Cooperative, and its directors, officers, and employees.

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341.6 Sign Contract

Sign and deliver to the Cooperative an “*Agreement for Interconnection and Parallel Operation of Distributed Generation*” (Interconnection Agreement) for each interconnection point as detailed in the DG Manual. An Interconnection Agreement is required in all cases.

341.7 Complete Construction

Construct the small 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 in accordance with the provisions of the DG Manual.

341.8 Comply with Laws

Comply with applicable federal, state, and local laws, ordinances and regulations applicable to the power generating installations being installed by the Producer.

341.9 Notify Cooperative

Notify the Cooperative in writing at least fourteen (14) days in advance of energizing the small power generating installation and permit the Cooperative or its agents to inspect and test any or all protective equipment required for the interconnection.

341.10 Eliminate Conditions Preventing Interconnection

In the event that it comes to the attention of the Cooperative that there are conditions preventing the safe interconnection and proper parallel operation of the Producer’s generating installation, the Cooperative shall immediately notify Producer and Producer shall not interconnect and/or initiate parallel operation

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until such conditions are corrected to the Cooperative’s satisfaction and Producer has provided at least ten (10) days written notice to the Cooperative of such correction.

341.11 Notice of Change in Installation

Producer will notify the Cooperative in writing at least thirty (30) 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 may adversely affect the Cooperative’s system then it shall notify Producer and Producer shall immediately correct such condition.

The foregoing are conditions precedent to any obligations of the Cooperative to interconnect the Producer’s proposed generating installation.

342. Parallel Operation and Technical Requirements

The following Section 342 outlines some of the technical requirements for interconnecting a small power producing installation with the Cooperative’s system. The DG Manual contains a complete description of the Cooperative’s technical interconnection and parallel operation standards and requirements.

342.1 Installation

With the exception of only the Cooperative’s meter(s), the Producer shall own and solely be responsible for all expense, installation, maintenance and operation of the small power generating installation at and beyond the point where Producer’s generating installation

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shall be designed and installed in accordance with applicable codes, regulations, the Cooperative’s standards as provided in the DG Manual, and prudent engineering practice.

342.2 Self Protected Generating Installation

The Producer (at Producer’s expense) will furnish, install, operate, and maintain in good order and repair all equipment necessary for the safe operation of the small power generating installation in parallel with the Cooperative’s electric 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 small power generating installation.

The Producer’s small power generating installation will also be designed, installed and maintained to be self-protected from normal and abnormal conditions in the Cooperative’s electric system. The conditions for which the power generating installation shall be self-protected shall include, but not be limited to, over-voltage, under-voltage, 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 electric power system characteristics so warrant. The Producer shall be responsible for the costs of any specialized protective functions.

342.3 Quality of Service

Producer’s generating installation will provide power at the nominal voltage of the Cooperative’s electric system at the Producer’s delivery point plus or minus five percent

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(5%) at the nominal system frequency of 60 Hz plus or minus one-tenth (1/10) Hz. Producer shall interconnect at a power factor that is at or near one hundred percent (100%) as is practicable. In the event the Producer’s 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 the cost 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 system is not adversely affected in any manner. In the event that the 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.

342.4 Safety Disconnect

The Producer or 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 at all times 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 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 for the protection of the Cooperative’s system even if it affects Producer’s generating installation. In the event

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the Cooperative opens and closes the disconnect switch the Cooperative 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.

342.5 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 at any time. 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).

342.6 Reserved for future use

342.7 Data Access – Communications Link

The Distribution Generation Customer will provide the Cooperative, at DG Customer’s expense, a communications link as approved at the sole discretion of the Cooperative for remotely monitoring DG output using the BEC approved hardware and Apolloware© Software. The Member shall purchase the required hardware and software from BEC to enable monitoring of Distributed Generation. The revenue class 1 meter shall be MuNet® TCP/IP Ethernet compatible, or equivalent as defined by BEC. The BEC Apolloware© software shall interface with member DG system and provide BEC a method to monitor DG output, to ensure safe operation and to ensure no degradation is occurring due to DG operation. The member is responsible for the meter and software to be installed at their

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facility. This system requires an internet connection for BEC to remotely monitor operation. BEC will provide the detailed costs of the hardware and the software on a case-by-case basis.

343. Reserved for future use

344. Sales to Producer

All sales of electric power and energy by the Cooperative to the Producer shall be consistent with the applicable retail rate schedule established by the Cooperative as if there were no small power generating installation at the Producer’s premise, including any additional charges provided for small power generating installations described by the Cooperative in the Producer’s contract for service. The Producer shall also pay all rates and charges so listed in the applicable tariff sections.

345. Purchases from Producer

Refer to Section 202.7 and 703.6 for rates.

345.1 Refusal to Purchase

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).

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 Application for Interconnection and Operation of Member-Owned Generation.

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<u>SECTION TITLE:</u> <p style="text-align: center;">SERVICE RULES AND REGULATIONS Part 2 – Rates & Fees Classifications</p> <p style="text-align: center;">APPLICABLE TO ALL AREAS SERVED</p>		ADOPTED DATE: March 22, 2017 Replacing revisions of May 25, 2016 EFFECTIVE DATE: April 5, 2017	

202.7 Small Power Distributed Generation (DG) Purchases from Producer

A. Compensation for energy produced for all DG installations May 19, 2016

Purchases under this tariff are limited to situations where the Producer’s primary intent is to off-set his or her on-site consumption with on-site generation. Other situations are negotiated on a case-by-case basis. Facilities greater than 50 kW will be negotiated on a case-by-case basis.

This rate is not applicable to temporary, shared, or resale service. The Producer may connect multiple DG Facilities behind a single Cooperative meter, but the total connected maximum rated output shall not adversely affect the Cooperative’s electric system. This rate is applicable to service supplied at one point of delivery. If any part of these sections shall be in conflict with any other provision of this tariff, these sections shall control.

Determination of on-site excess generation and on-site consumption shall be accomplished by interconnection through a single meters with two registers where one register measures all energy supplied by the Cooperative in excess of on-site generation, and the other register measures all energy supplied by the Producer in excess of on-site consumption.

For power produced in excess of on-site requirements, where the energy supplied by the Producer is in excess of on-site consumption, the Producer shall be compensated at the Cooperative’s avoided wholesale power cost as defined in Section 202.7(B).

In the event where the monetary credit exceeds the billed amount, the credit shall be applied in the subsequent bill.

For the energy supplied by the Cooperative as defined, the Cooperative shall bill the Producer according to the Cooperative’s applicable retail rate schedule.

B. For the purposes of this small power production tariff, the Cooperative’s avoided wholesale power cost (see Section 703.2) will be calculated by dividing the prior year’s total power purchase cost (excluding demand costs, transmission costs, ERCOT and related fees, and distribution costs) by the prior year’s total kWh’s purchased.

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Section VII – Rates & Charges

701.6 Small Power Production

Fee Description	Fee	Tariff Reference	Revision Date
Small Power Production	\$250	502.2 & 341.2	July 24, 2013
Member Request Fee	\$75	341.2	July 24, 2013

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Section VII – Rates & Charges

703 Energy Rates – Single – Phase and Three – Phase Distribution

703.1 Small Power DG Rates and Avoided Cost Multiplier for BEC and Purchases From Producer

Service Type	Energy Charge (\$/kWh)	Delivery/ Distribution (\$/kWh)	Total	Tariff Reference	Revision
Single-Phase, per meter	\$0.067075	\$0.021358	\$0.088433	202.1(C)	September 1, 2013
Three-Phase per meter	\$0.067075	\$0.019442	\$0.086517	202.1(C)	September 1, 2013

Service Type	*Avoided Wholesale Cost	Tariff Reference	Revision
Single-Phase, per meter	\$0.050541	202.7(B)	September 1, 2013
Three-Phase per meter	\$0.050541	202.7(B)	September 1, 2013

*Avoided Cost changes annually. Contact BEC with latest cost(\$).

