

Wind & Solar Power Document Packet

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- 4) Rate Schedule A Renewable Resource Pass Through Rate (5 Pages)



The Power Is In Your Hands



Touchstone Energy

LACREEK ELECTRIC ASSOCIATION, INC.

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POLICY NO. 40

SUBJECT: Interconnection of Distributed Generation

OBJECTIVE: To establish a policy for the Interconnection of distributed generation.

POLICY CONTENT:

Definition of a distributed generation system (herin after referred to as DG) shall mean a Small Power Producer or a Co-Generation Facility which meets the requirements of a Qualifying Facility as defined by the Federal Energy Regulatory Commission.

- A. No generation shall be paralleled with the Cooperative's system without prior knowledge or approval.
- B. Prior to the connection of any DG equipment to the Cooperative system the DG installer shall furnish general information and drawings of the proposed installation of sufficient detail such that a technical review can be made.
- C. The DG's equipment shall have an electrical output that is satisfactory to the Cooperative and the Rural Electrification Administration.
- D. The requirements and arrangements for intertie for DGs shall be considered on an individual basis because:
 - 1. There are many different types of machines.
 - 2. Many DGs are new and have not yet been fully tested.

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R U R A L E L E C T R I C S - G O O D F O R A L L

This institution is an equal opportunity provider and employer.

3. Each machine has its own different safety, operating and electrical output characteristics.
4. The impact that these machines will have on our system and our members is not yet known.

Other Conditions

Individuals, Corporations, or partnerships interested in a Distributed Generation system with LEA shall:

- A. Be a member of the Cooperative, or become a member.
- B. File a DG Application with the Cooperative on the Cooperative furnished form.
- C. Make arrangements for the intertie by a contract agreement with the Cooperative.
- D. Pay associated costs of the intertie connection to the extent that such costs are in excess of those that the Cooperative would have incurred if the DG were not installed. These costs may include, but are not limited to:
 1. Equipment to make the installation safe for the Public and our employees
 2. All generating and associated interconnection equipment
 3. All equipment for proper operation
 4. All electrical equipment to make the DG output meet the Cooperative's and REA standards of voltage, power factor, frequency and harmonics distortion.
 5. Liability Insurance
 6. Maintenance and operational costs of the qualifying facility
 7. Line losses in the delivery of electrical energy to other members, if energy is purchased from the Qualifying Facility
 8. All protective equipment to protect the Qualifying Facility's equipment from act of God, abnormal distribution line conditions, Cooperative's breaker operations and faulted distribution lines
- E. The Qualifying Facility shall be located on a site acceptable to the Cooperative.
- F. The Cooperative reserves the right to install testing equipment if it so desires.
- G. The cooperative reserves the right to permanently disconnect DG equipment that is or may later be determined to be in violation of the Agreement for Interconnection.

- H. Member will not be eligible for electric heat credit on services connected to renewable DG.
- I. LEA reserves the right to change the Rates for DG.

Technical Requirement:

- A. Capacity. Depending upon location, the Cooperatives' system will have varying limits of capacity to interconnect DG equipment. Generally, DG equipment of a maximum output of 150 kW or less and which will not exceed capacity of the existing distribution service transformer will be accommodated. Interconnection of systems in excess of 150 kW will require approval by the Cooperative Board of Directors. Systems above 150 kW may require additional control equipment and may also be subject to other special terms, including a detailed engineering review. Special conditions may apply and the use of a long form contract, as published by NRECA shall be required.

The Cooperative shall reserve the sole right to determine capacity limits of the system. Where an upgrade of the Cooperative facilities may be possible in order to provide an increase of capacity for the DG equipment, the costs of construction shall be the responsibility of the DG installer.

- B. Liability. The DG installer shall recognize and be responsible for the risk associated with interconnection to the Cooperative system.

Proof of liability coverage, on our system of 25 kW and above, will require an amount of no less than \$1,000,000, with systems less than 25 kW possibly being required by the Cooperative prior to interconnection. The DG installer shall be responsible for maintaining this coverage and for furnishing a copy of an updated Certificate of Insurance to the Cooperative as made necessary by policy renewals.

- C. Metering. Two-way metering shall be installed on all interconnections, regardless of the capacity of the DG equipment. The Cooperative shall specify, furnish and install this equipment at the DG installer's expense. Generally, the use of a single bi-directional meter or the use of two separate one-way meters shall be the standard.

Metering for systems rated 150 kW or greater shall require the use of 30-minute time registration demand metering.

- D. Energy Sales. The Cooperative shall maintain two metering accounts for the service. One account will track forward power flow towards the member/DG equipment. The second account will track reverse power flow from the member/DG equipment into the Cooperative's system.

Power sales to the member/DG equipment will be made at the standard published retail rate. Power sales from the member/DG equipment to the Cooperative will be made at the member generated power purchase rate as published by the Cooperative's power supplier.

- 1. LEA will follow the Basin Electric Rate Schedule A renewable resource pass through rate.

E. Power Quality. The DG installer shall be responsible for generating power of a quality to meet or exceed electrical standards as defined by ANSI/IEEE 1001-1988. The criteria shall be defined as follows:

1. Voltage flicker – not to exceed 3% Volts change on the primary-side bus for short time switching operations
2. Power factor - .95 lag to .95 lead
3. Total harmonic distortion (voltage and current) – not to exceed 5% as measured at the service entrance equipment

F. Safety. The DG installer's equipment shall be designed and operated such that an automatic disconnect shall be made upon full or partial loss of Cooperative source power.

A multi-pole disconnect switch, made directly accessible to Cooperative personnel and with means to provide a visible open shall be provided on the load side of the service connection. This switch may be placed either adjacent to the DG terminals or in line with the service entrance equipment. The switch must be accessible on a 24 hour, 7 days a week basis, with a clearly marked identification tag per NEC article 705-10, and it shall have provisions for being locked in the open position.

The DG installer shall be fully responsible for meeting other general safety conditions for the interconnection as outlined in the National Electric Code, article 705. Where the proposed installation may involve solar photovoltaic or fuel cell generation, the articles 690 and 692 shall also apply. Where ancillary control equipment, such as charge controllers and /or inverters may be involved, then the applicable UL rules, including UL 1741, shall also apply. Where other issues relating to power quality arise, then the applicable rules of ANSI/IEEE 1001-1988 and subsequent ANSI/IEEE publications shall apply.

RESPONSIBILITY: General Manager and Operations Manager

APPROVED: December 20, 2005

REVIEWED: January 9, 2007
January 26, 2010
February 9, 2017
November 26, 2019

REVISED: January 16, 2007
February 23, 2010
March 21, 2017
August 21, 2018

ATTORNEY REVIEWED: January 15, 2020

APPLICATION FOR DISTRIBUTED GENERATION

The applicant shall submit and maintain an up-to-date *Application For Distributed Generation* on file with the Cooperative. The Application shall include the following information:

Applicant name

Address

Address

Phone number

Owner name

Address

Address

Phone number

Legal land description and lot dimensions of site: _____

Primary intent of the generation system:

On-site use of power _____

Commercial sale to third party _____

Estimated construction start date _____

Target in-service date _____

Equipment supplier _____

Equipment model and serial number _____

Rated output capacity _____ Estimated yearly kWh production _____

Power factor _____ Range (if applicable) _____

Describe the delivery voltage and/or voltage of interconnection if different, noting also single-phase or three-phase operation and winding configuration: _____

Delivery facilities to be furnished by applicant: _____

Normal operation of interconnection:

Open transfer _____ Closed transfer _____ Full parallel _____

Attachments to the *Application For Distributed Generation*:

Site map

Single-line diagram

Control schematic, including make and setting of protective devices

Proof of insurance

AGREEMENT
FOR INTERCONNECTION OF DISTRIBUTED GENERATION
SHORT FORM CONTRACT

This Interconnection Agreement (“Agreement”) is made and entered into this _____ day of _____, 20____, by Lacreek Electric Association, Inc., a corporation organized under the laws of the State of South Dakota, and _____

DG Owner/Operator

each hereinafter sometimes referred to individually as “Party” or both referred to collectively as the “Parties”. In consideration of the mutual covenants set forth herein, the Parties agree as follows:

This agreement provides for the safe and orderly operation of the electrical facilities interconnecting the DG Owner/Operator’s facility at _____
site location
and the electrical distribution facility owned by the Cooperative.

This Agreement does not supersede any requirements of any by-laws, applicable tariffs, rates, rules and regulations in place between the DG Owner/Operator and the Cooperative.

1. **Intent of Parties:** It is the intent of _____
DG Owner/Operator
to interconnect an electric power generator to the Cooperative’s electrical distribution system.

It is the intent of Lacreek Electric Association, Inc. to operate the distribution system to maintain a high level of service to their customers and to maintain a high level of power quality.

It is the intent of both parties to operate the facilities in a way that ensures the safety of the public and their employees.

2. **Operating authority:** The DG Owner/Operator is responsible for establishing operating procedures and standards within their organization. The operating authority for the DG Owner/Operator shall ensure that the operator in charge of the generator is competent in the operation of the electrical generation system and is aware of the provisions of any operating agreements and regulations relating to the safe operation of electrical power systems.

The operating authority for the DG Owner/Operator is:

Title

Phone number

Address

Address

3. **Suspension of Interconnection:** It is intended that the interconnection should not compromise Lacreek Electric Association's protection or operational requirements. The operation of the DG Owner/Operator's system and the quality of electric energy supplied by the DG Owner/Operator's system shall meet the standards as specified by the Cooperative. If the operation of the DG Owner/Operator's system or quality of electric energy supplied (in the case of power export) does not meet the standards as specified, then Lacreek Electric Association will notify the DG Owner/Operator to take reasonable and expedient corrective action. Lacreek Electric Association shall have the right to disconnect the DG Owner/Operator's system, until compliance is reasonably demonstrated. Notwithstanding, Lacreek Electric Association may in its sole discretion disconnect the DG Owner/Operator's generating plant from the distribution facility without notice if the operating of the generating plant imposes a threat, in the Cooperative's sole judgment, to life and property.
4. **Maintenance Outages:** Maintenance outages will occasionally be required on the Cooperative's system, and the Cooperative will provide as much notice and planning as practical to minimize downtime. It is noted that in some emergency cases such notice may not be practical. Compensation will not be made for unavailability of Cooperative's facilities due to outages.

5. **Access:** Access is required at all times by the Cooperative to the DG Owner/Operator's plant site for maintenance, operating and meter reading. Lacreek Electric Association reserves the right, but not the obligation, to inspect the DG Owner/Operator's facilities.
6. **Liability and Indemnification:** The DG Owner/Operator shall assume all liability for and shall indemnify Lacreek Electric Association for any claims, losses, costs, and expenses of any kind or character to the extent that they result from the DG Owner/Operator's negligence or other wrongful conduct in connection with the design, construction or operation of DG Owner/Operator's facility.
7. **Liability Insurance:** Proof of liability coverage, on our system of 25 kW and above, will require an amount of no less than \$1,000,000, with systems less than 25 kW possibly being required by the Cooperative prior to interconnection. The DG installer shall be responsible for maintaining this coverage and for furnishing a copy of an updated Certificate of Insurance to the Cooperative as made necessary by policy renewals.
8. **Term:** It may be canceled by either party with not less than 30 days notice to the other party.

AGREED TO BY

DG Owner/Operator

Name: _____

Title: _____

Date: _____

Lacreek Electric Association

Name: _____

Title: _____

Date: _____

BASIN ELECTRIC'S POLICY FOR ADMINISTERING THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978 (PURPA)

The Public Utility Regulatory Policies Act (PURPA) requires that electric utilities must purchase power produced from Qualifying Facilities (QF's) at their avoided cost. Avoided cost is the incremental cost an electric utility that, but for the purchase from the qualifying facility, such utility would generate itself or purchase from another source.

Per the Basin Electric Board action in August 2017, the Board closed the Renewable Resource Pass Through Rate and such qualifying projects will be addressed under the PURPA Rate. As a result, Basin Electric will purchase 100% of the output of new Member-owned renewable projects that are less than or equal to 150kW at Basin Electric's PURPA Rate. Such Member-owned purchases shall not exceed 7MW in total. The Basin Electric purchase price and billing mechanisms for the Member-owned renewable projects will be in accordance with the PURPA Billing/Meter subsection 2 provisions.

Basin Electric, its generation and transmission (G&T) members, and its distribution cooperative members, together represent one cooperative system owned and controlled by the consumers to provide them with electrical power at cost. The avoided costs that occur when this three tier cooperative system purchases QF generation is equal to Basin Electric's reduced power production costs and the reduced transmission and distribution line losses associated with delivering the generation to load. This concept reflects the criteria described in FERC Order 69.

The below rates are valued at the point of delivery:

Rates

1. QF generation with a capacity rating of more than 50 kW but less than 150 kW

Power Supply Planning Area	Capacity (\$/kw-mo.)	Energy (Mill/kWh)
MISO	0	15.7 OR the Real Time Hourly LMP price
SPP	0	22.6 OR the Real Time Hourly LMP price
NW Energy	0	23.6
CUS/PAC	0	13.0

2. QF generation with a capacity rating of 150 kW or greater

Power Supply Planning Area	Capacity (\$/kw-mo.)	Energy (Mill/kWh)
MISO	0	Real Time Hourly LMP price
SPP	0	Real Time Hourly LMP price
NW Energy	0	23.6
CUS/PAC	0	13.0

Basin Electric and its Members' present load forecasts project that Basin Electric has sufficient generating capacity and long-term purchase power contracts in place to meet Member needs in 2019. As a result, no new capacity is required in 2019 and no capacity payments are provided to QFs as the QF generation results in no avoided capacity construction or avoided purchase power capacity expense.

Basin Electric is also planning for resource expansion in some Power Supply Planning Areas. As a result, Basin Electric is willing to discuss the pricing of resource commitments for periods more than one year on a negotiated basis.

These rates represent the avoided costs of the wholesale power supply component of the cooperative system and are computed at Basin Electric's point of delivery to its Members. They consequently consider the savings in the high voltage transmission line losses, but do not consider that purchasing power from a QF located on a distribution cooperative system normally reduces the transmission losses of the distribution cooperative and the G&T. Since these also represent avoided costs, the Members need to adjust Basin Electric's avoided costs to reflect their own unique circumstances regarding losses.

Basin Electric and its Members have elected to separate QF's into three different categories for purposes of the program administration. These categories, which are defined by the capacity rating of the QF, reflect the complexity and associated administrative expense the purchase has on the three tier cooperative system. The avoided costs and payments to the QF are the same for all categories. The administration costs are different.

Pursuant to 18 CFR 292.302 of the Regulations of the Federal Energy Regulatory Commission, Basin Electric retains its electric utility system cost data for public inspection upon request.

Billing/Metering

1. QF generation with a capacity rating of 50kW or less

The Member may contract to purchase the QF generation.

2. QF generation with a capacity rating of more than 50 kW but less than 150 kW

The Member may contract to purchase the QF generation.

Basin Electric shall reimburse the Member for its QF generation purchase. Basin Electric payment to the Member shall be based on the committed accredited amount and the metered energy generation and Basin Electric avoided costs adjusted by the G&Ts and distribution Members to reflect their own transmission losses and other possible savings. Basin Electric shall not base its payment on state mandated rates. Basin Electric shall provide payment to the Member via a credit on its monthly power bill.

The Member shall install energy metering on the QF and provide Basin Electric with the QF generated energy at the end of each billing period. Based on this information, the monthly billing shall be computed as follows:

- a) The QF generation at the time of the Member's coincident peak shall be estimated by the Member and Basin Electric based on factors such as the QF monthly energy generation and expected capacity and diversity factors. After a review of the available information, Basin Electric shall be the sole judge of establishing the QF generation at the time of the Member's coincident peak. The Member at its option and expense may install 30 minutes MV90 compatible time registration metering in lieu of this calculation. The Member shall in that event be responsible for providing Basin Electric with the QF 30 minute demand at the time of its coincident peak.
- b) If the Member chooses to be paid per the real time hourly LMP price for MISO or SPP, the Member must install 30 minute MV90 compatible time registration metering. The Member shall in that event be responsible for providing Basin Electric with the QF 30 minute demand at the time of its coincident peak. The appropriate pricing node will be determined by Basin Electric at the time of application.
- c) Basin Electric monthly wholesale power deliveries to the Members shall be increased to reflect that the QF generation represents a Basin Electric point of delivery to the Members. Basin Electric total supplemental energy delivery to the Member shall be determined by adding the QF generated energy to Basin Electric's energy deliveries to the Member. Basin Electric total supplemental demand deliveries to the Members shall be determined by adding the QF peak generation computed in step a) to Basin Electric's demand deliveries to the Member.

The resultant Basin Electric deliveries shall be billed in accordance with the rate schedules contained herein.

3. QF generation with a capacity rating of 150 kW or greater

For Members that have not assigned over their PURPA obligation of 150kW or greater to Basin Electric, the Member may contract to purchase the QF generation.

Basin Electric shall reimburse the Members for its QF generation purchase. Basin Electric payment to the Member shall be based on the committed accredited amount and the metered energy generation and Basin Electric avoided costs adjusted by the G&Ts and distribution Members to reflect their own transmission losses and other possible savings. Basin Electric shall not base its payment on state mandated rates. Basin Electric shall provide payment to the Member via a credit on its monthly power bill.

- a) The Member shall be responsible for installing 30 minute MV90 compatible time registration demand metering on the QF's. The Member shall be responsible for translating the monthly meter readings and to provide to Basin Electric the QF generation at the time of their coincident peak. Basin Electric shall reimburse the Member for this translation service.
- b) Basin Electric's monthly wholesale power deliveries to the Members shall be increased to reflect that the QF generation represents a Basin Electric point of delivery to the Members. Basin Electric total supplemental energy delivery to the Member shall be determined by adding the QF generated energy to Basin Electric energy deliveries to the Member. Basin Electric total supplemental demand deliveries to the Members shall be determined by adding the QF generation at the

time of the Member's coincident peak to Basin Electric's demand deliveries to the Member.

The resultant Basin Electric deliveries shall be billed in accordance with the rate schedules contained herein.

PURPA RATE APPLICATION

Member Cooperative*	Click here to enter text.
Name of Distribution Cooperative and Owner of the Renewable Energy Project	Click here to enter text.
Commitment Term	Click here to enter a date. through Click here to enter a date.
Project Size	Click here to enter text.
Location	Click here to enter text.
Substation Project is Connected to	Click here to enter text.
Power Supply Region	Choose an item.
Rate Option for QF Generation with a capacity rating less than 150kW in MISO or SPP	<input type="checkbox"/> Listed mills/kWh rate in Rate Schedule <input type="checkbox"/> Hourly Real Time LMP Price
Type of Facility (describe in detail)	
Click here to enter text.	
<i>(Signature)</i>	<i>(Date)</i>
* By filling out this application, the Member agrees to each of the conditions in the PURPA Rate.	