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This document describes the general operating, metering and protective (1) equipment required by the Company for operation of its system in parallel with generating sources. Additional equipment or information may be required depending on location, type of generation, amount of generation, etc.

I. Definitions

Whenever used in this tariff, the following words and phrases shall have the following meanings:

- 1. "Interconnection Agreement" shall mean the agreement between the customer and the Company and all schedules, attachments, exhibits and appendices attached thereto and incorporated therein by specific reference.
- 2. "Qualifying Facility" shall mean the generation unit(s), being either a cogeneration unit or a small power production unit, and all related equipment.
- "Interconnection Facilities" shall mean all machinery, equipment and fixtures required to be installed solely to interconnect and deliver power from the facility to the customer's electrical system or the Company's systems or both, including, but not limited to, connection, transformation, switching, metering, relaying line and safety equipment and shall include all necessary additions to, or reinforcements of, the Company's system.
- 4. "Small System Renewable Energy Certificate (REC) or Small System REC" shall mean a document proving that the renewable energy, in kilowatt hours, has been generated from a renewable generating facility. Small System RECs are measured in the same units as the energy generated.
- 5. "REC meter" shall mean a separate meter measuring the energy output of the customer's qualifying renewable generating facility.
- 6. "Net meter" shall mean a separate meter measuring the difference between the energy produced by the qualifying facility's generation and the energy that would have otherwise been supplied by the Company to the qualifying facility absent the qualifying facility's generation.
- II. Interconnection Standards
 - A customer operating electric generating equipment shall not connect it in parallel with the Company's system without a properly executed interconnection agreement between the customer and the Company. The

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customer shall design, construct, install, operate, own and maintain all facilities such as protective and synchronizing equipment.

A. The customer must supply the Company with the following information:

- 1. Type of generation (induction, synchronous, etc.)
- 2. Rating of generator(s).
- 3. Location of facility.
- 4. One-line diagrams of the proposed installation which includes descriptions of protective devices.
- 5. Affidavit and/or self certification form.

B. The customer is responsible for operating and maintaining all equipment necessary for interconnection unless otherwise stated in the Interconnection Agreement. The customer is responsible for complying with all local, state and federal rules, as they apply.

Initial parallel operation is not allowed until the customer has submitted written confirmation that its protective devices have been field tested and Interconnection Agreement has been finalized.

- 2. The Qualifying Facility shall meet the requirements of the State of New Mexico Electrical Code and the National Electric Safety Code and all applicable and prudent safety and electrical practice standards.
- 3. The customer shall operate his electric generating equipment to provide alternating current at one of the Company's standard service voltages, single or three phase at 60 hertz.
- 4. The number or phases of the produced voltage will be compatible with the phase (phases) available on the Company's system at the Qualifying Facility site. Normally, the number of phases shall be the same as those of the Company's system.
- 5. When the output of the Qualifying Facility is single phase, connection to the Company's system shall only be allowed if the output does not result in an unacceptable current imbalance. If the output of the Qualifying Facility is single phase and connected to the secondary side of a single phase service

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distribution transformer, the output capacity of the Qualifying Facility shall not exceed ten KVA.

- 6. The protective devices connected between the output of the Qualifying Facility and the Company's system must be rated for the maximum available fault current, which the Company's system may be capable of developing at the point of interconnection. Such devices shall disconnect the Qualifying Facility's generation from the Company's system in the event of a fault on the system belonging to the Qualifying Facility in order to maintain continuity of service to other customers connected to the secondary of the distribution transformer or other portions of the Company's system.
- 7. The customer shall pay the cost of the Interconnection Facilities specified in the Interconnection Agreement at the time and in the matter specified in the Interconnection Agreement.
- 8. The customer shall permit the Company at any time the Company deems necessary to install or modify any equipment or apparatus to protect the safety of the Company's employees or the accuracy of the Company's metering equipment as a result of the operation of the customer's equipment. The customer shall reimburse the Company for the cost of such installation or modification.

III. Safety Standards

- 1. The customer shall notify the Company before the initial energizing and start-up testing of the Qualifying Facility, and the Company shall have the right to have a representative present at such test.
- 2. The customer shall permit the Company's agents and employees to enter upon its property at any reasonable time for the purpose of inspecting the Qualifying Facility and the Interconnection Facilities to ensure continued safe operation and the accuracy of the Company's metering equipment, but such inspections shall not relieve the customer from the obligation to maintain the Qualifying Facility in satisfactory operating conditions.

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- The Qualifying Facilities interconnection must automatically disconnect 3. from the Company's system if electric service is interrupted. The Qualifying Facility will coordinate automatic re-energization in this system with the Company's standard protection practices.
- 4. The Company shall have the right to disconnect the customer if in the sole judgment of the Company an unsafe condition is created on the Company's system by the operation of a facility, the Company shall have the right to disconnect the customer until the cause of such condition is eliminated.
- 5. The customer shall have sole responsibility for synchronizing the customer's Qualifying Facility with the Company's electrical system in accordance with the Company's standard protection practices.
- IV. Equipment Requirements
 - 1. Metering

If the customer desires to sell power and/or renewable energy certificates Х to the Company, then the customer is responsible for providing and maintaining the facilities necessary to accommodate the Company's metering. All meters and recording devices shall be provided and installed by the Company. The meters to be installed will vary, depending upon the applicable tariffs, the Interconnection Agreement, Х and Application to Participate in Purchase Program for Small System Х Х Renewable Energy Certificates or Application to Participate in Purchase Program for Medium System Renewable Energy Certificates. The Х metering to be installed will measure one or more of the following:

- Demand а.
- b. Energy
- Reactive power C.
- d. Time of delivery
- Net metered energy (the difference between the energy received from e. the customer and the energy delivered to the customer)
- f. REC meter energy



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2. Protective Control Devices

The following are the Company's minimum requirements necessary to allow interconnection with the Company's system.

A. Disconnect Device.

A manually operated, Company-approved, securable-type load break disconnect switch that is capable of electrically separating the customer's generation from the Company's system shall be furnished, installed and maintained by the customer. If the disconnect switch is located in the Company's system, the disconnect switch will be installed by the Company at the customer's expense. The disconnect switch must provide a visible air gap and be located in an area that is easily accessible to the Company's personnel. The Company shall have the right to operate the disconnect switch and lock it open. This will be done in order to provide working clearance for maintenance and repair of Company-owned equipment. The disconnect switch may not be locked in the closed position. Ingress and egress to the load break disconnect switch by the Company's personnel shall be provided at all times by the customer.

- 3. The load break disconnect switch provided by the customer may be opened and secured with a Company-owned padlock by the Company without prior notice to the customer in the event of:
 - a. A Company system emergency;
 - b. Evidence showing the customer's Qualifying Facility to be hazardous to the Company's system or the Company's customer;
 - c. It is necessary to assure safety to Company's personnel.
- 4. Circuit Breaker

A circuit breaker will be required to separate the customers generator(s) from the Company's system. The breaker must be equipped with accessories to trip the breaker with an external trip signal supplied through a battery (shunt trip). Telemetering of the breaker status to the Company's dispatching center is required if the Company is to purchase 1,000 KW or greater from the customer.



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5. Relays

Overvoltage, undervoltage, overfrequency and underfrequency relays shall be required. Coordination with Company-owned equipment is recommended.

6. A dedicated transformer which serves only the customer.

This is required if the transformer supplies power to more than one customer.

7. A Ground Fault Sensing Scheme.

This scheme must be capable of detecting ground faults in the Company's system and disconnecting the generator(s) from the system.

8. Synchronous generators and induction generators designed to operate similar to synchronous generators must have manual synchronization with relay supervision.

9. A Voltage Regulator

A voltage regulator may be required to maintain the output voltage at a specified level. This requirement is site specific.

10. Line Protection (generators of 1,000 KW or greater).

Line protection relays are required to match the protective relays at the Company's breakers for the line on which the generator is connected. These relays must be able to detect line faults in the Company's line.

- 11. Dispatchable generators greater than 10 MW may be required to provide direct control of unit output from the Company's dispatching center. A power system stabilizer may also be required.
- V. Other Requirements
 - 1. Direct Telephone Service

Direct telephone service may be required to ensure proper coordination of

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operating procedures during emergencies or for maintenance.

2. Harmonics

The harmonic content of the customer's generation must not cause interference or equipment operation problems for the Company or other Company customers. If the Qualifying Facility is found to be the cause of harmonic related problems, the Company reserves the right to disconnect the Qualifying Facility from the system. If the cause of the problem is traced to the Qualifying Facility, all costs associated with determining and correcting the problems will be at the customer's expense.

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