

**Qualifying Facility
Interconnection Procedures Checklist**

Kit Carson Electric Cooperative, Inc.

Name of QF: _____

Name of Utility: **Kit Carson Electric Cooperative, Inc.**

STEP 1

QF contacts the Utility.

STEP 2

The Utility system then refers QF to the contact person.

STEP 3

Utility sends QF a letter with Application for Interconnection and Standard Interconnection Agreement with all attachments. Utility opens file to hold copies of QF correspondence and any related documents.

STEP 4

QF completes both the Application and Agreement (including all attachments) and submits completed documents to the Utility, which includes the following:

Engineering Drawings and/or Schematics of Interconnection

Note: The drawings and/or schematics of the QF must be in sufficient detail to allow for the determination, confirmation, and verification of the requirements identified in the Interconnect and Safety Standards for Interconnection. QF **must** provide a meter base for the "REC METER" (on the QF side). K.C.E.C. will provide and install the "REC METER".

STEP 5

Utility and QF then finalize and execute agreement. Owner pays to the Utility the full amount of estimated costs incurred by the Utility for applicable interconnection.

STEP 6

QF constructs the facility, and the Utility constructs the necessary interconnection facilities.

STEP 7

Once the small QF is constructed, an onsite review meeting with the Utility will be scheduled.

STEP 8

Written authorization to operate the QF is provided by the Utility.

Interconnection and Safety Standards for Qualifying Facilities

- A. Interconnection Standards - Qualifying Facilities (QF) will meet the interconnection and safety requirements and standards as specified in NMPRC Rule 571, 17 NMAC 10.571 and as follows.
- B. Protection Requirements - The QF as a minimum will provide the following protection for the interconnected operation.
 - 1. Disconnect Switch - QF is to install a disconnect switch of sufficient rating such that when the switch is open there is a visible opening of the circuit at the point of connection to the Utility's system.
 - 2. Back-Feed Protection - to insure the QF does not energize the Utility's facilities during Utility system disturbances.
 - 3. Synchronization Protection - to insure the QF system is synchronized with the Utility prior to coming on line so that the QF will not cause disturbances to be seen by other Utility consumers.
 - 4. Frequency Protection - to be provided to maintain the frequency output of the QF within acceptable limits as prescribed by Institute of Electrical and Electronics Engineers (IEEE) limits.
 - 5. Fault Protection - to prevent short circuits of the QF system from causing system disturbances from being seen by other Utility consumers.
 - 6. Overload Protection - to protect operating personnel from the QF back feeding into a fault on the Utility's system.
 - 7. Lighting Protection - to prevent lighting problems from causing damage to the Utility's equipment.
 - 8. Harmonics Correction - the QF is to prevent harmonic levels from causing problems for other Utility consumers.
 - 9. Communication Interference Correction - if the QF causes any communication interference they will be required to install equipment to correct the problem.
- C. Schematic Requirement - The schematic or drawing will be reviewed to insure that the devices listed in section B, above, and their ratings have been addressed for the proposed QF.
- D. Code Requirements - the QF will be required to meet all applicable safety and performance standards, including these established by the National Electric Code, National Electric Safety Code, the IEEE, Underwriters Laboratories, local and state codes, and all additional safety and performance standards of the Utility or adopted by the NMPRC pursuant to NMPRC Rule 571, 17 NMAC 10.571, that are necessary to protect public safety and system reliability.
- E. Permit Requirements - a permit issued by the State of New Mexico Construction Industries Division shall be turned in to the Utility before the QF is connected to the Utility's system.
- F. Notification of Initial Testing - the QF shall notify the Utility ten (10) working days prior to putting the QF on line so that the Utility's representative may be present during initial testing. This test is to be conducted during normal business hours for the Utility or the QF may be charged for overtime charges incurred by the Utility.

- G. Access Requirements - the QF will be required to provide access and Right-of-Way to the Utility, so that they may inspect the facility at any time. The QF will be required to supply the Utility with all combinations to locks or allow the Utility to install their own locks so that the Utility will have access to the facility.
- H. Limitations - the Utility may develop additional provisions for case-by-case requirements and standards for certain facilities based on their size and location. The Rural Utility Service may require additional conditions for its borrowers. A QF is responsible for identifying and furnishing the Utility with other standards, which the contract should contain, because of any unique characteristics of the QF or of potential effects from the QF operation, which the QF should reasonably know. Nothing in this statement shall preclude the Utility from evaluating each request for interconnection on its own merits, subject to NMPRC Rule 571, 17 NMAC 10.571.

KIT CARSON ELECTRIC COOPERATIVE, INC.

STANDARD INTERCONNECTION AGREEMENT FOR QUALIFYING FACILITIES 10 kW OR LESS

(Customer) and Kit Carson Electric Cooperative, Inc. (Utility), referred to collectively as parties and individually as party, agree as follows:

1. QUALIFYING FACILITY 10 kW OR LESS:

Customer's electric service account number _____

Type of generating facility (solar, wind, etc) _____

Rated generating capacity

Customer and facility address _____

Facility will be ready for operation on or about
(date)

Operating option:

Customer has elected to operate its Qualifying Facility (QF) in parallel with Utility's system.

Customer understands that if this agreement is accepted, connection and operation of customer's QF must meet, at all times, all applicable, safety and performance standards, including those established by the National Electric Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, and all additional safety and performance standards of Utility or adopted by the Commission pursuant to this rule that are necessary to protect public safety and system reliability.

Customer shall be subject to the terms and conditions set forth in 17 NMAC 10.571, a copy of which is attached to this agreement, Customer, hereby acknowledges, that Customer has read 17 NMAC 10.571.

2. **CREDIT FOR NET ENERGY:** Credit for net energy shall be in accordance with 17 NMAC 10.571.11.

3. INTERRUPTION OR REDUCTION OF DELIVERIES:

Utility shall not be obligated to accept or pay for and may require Customer to interrupt or reduce deliveries of available energy:

When necessary, in order to construct, install, maintain, repair, replace, remove, investigate or inspect any of its equipment or part of its system; or if it reasonably determines that curtailment, interruption, or reduction is necessary because of emergencies, forced outages, forced majeure, or compliance with prudent electrical practices.

Whenever possible, Utility shall give Customer reasonable notice of the possibility that interruption or reduction of deliveries may be required.

Notwithstanding any other provision of this agreement, if at any time, Utility reasonably determines that either:

The facility may endanger Utility personnel or other persons or property,
or

The continued operation of Customer's facility may endanger the integrity
or safety of Utility's electric system,

Utility shall have the right to disconnect and lock out Customer's facility from Utility's electric system. Customer's facility shall remain disconnected until such time as Utility is reasonably satisfied that the conditions referenced, in this section, have been corrected.

4. INTERCONNECTION:

Customer shall deliver the as-available energy to Utility at the Utility's meter.

Customer shall pay for designing, installing, operating, and maintaining the electric generating facility in accordance with all applicable laws and regulations.

Utility shall furnish and install a standard kilowatt-hour meter. Customer shall provide and install a meter socket and any related interconnection equipment per Utility's requirements.

Utility may meter the customer's usage, using two meters for measurement of energy flows, in each direction, at the point of delivery. Additional metering shall be at the expense of the party choosing to install additional meters, unless net metering cannot be accomplished otherwise; provided, however, that Customer's and Utility's responsibility for metering costs will be in accordance with the provisions of 17 NMAC 10.571.10.6.

Customer shall provide a clearly understandable sketch or one-line diagram showing the Qualifying Facility, the interconnection equipment, breaker panel(s), disconnect switches, and metering; attached to this agreement.

Customer shall not commence parallel operation of the generating facility until written approval of the interconnection facilities has been given by Utility. Such approval shall not be unreasonably withheld or delayed. Notwithstanding the foregoing, Utility approval to operate Customer's Qualifying Facility in parallel with Utility's electrical system should not be construed as an endorsement, confirmation, warranty, guarantee or representation concerning the safety, operating characteristics, durability, or reliability of Customer's Qualifying Facility. Utility shall have the right to have its representatives present at the initial testing of Customer's protective apparatus.

5. MAINTENANCE AND PERMITS: Customer shall:

Maintain the generating facility and interconnection facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, Utility's interconnection requirements as set out in Appendix A to this agreement, and

Obtain any governmental authorizations and permits required for the construction and operation of the electric generating facility and interconnection facilities.

6. ACCESS TO PREMISES: Utility may enter Customer's premises:

To inspect at all reasonable hours Customer's protective devices and read or test meter, and

To disconnect, without notice, the interconnection facilities if Utility reasonably believes a hazardous condition exists and such immediate action is necessary to protect persons, or Utility's facilities or property of others, from damage or interference caused by Customer's facilities or lack of properly operating protective devices.

7. INDEMNITY AND LIABILITY:

Each party shall indemnify the other party, its directors, officers, agents and employees against all loss, damages, expense and liability to third persons for injury to, or death of persons or injury to property caused by the indemnifying party's engineering design, construction, ownership or operations of, or the making of replacements, additions or betterment to, or by failure of, any such party's works or facilities used in connection with this agreement by reason of omission or negligence, whether, active or passive. The indemnifying party shall, on the other party's request, defend any suit asserting a claim covered by this indemnity. The indemnifying party shall pay all costs that may be incurred by the other party enforcing this indemnity. It is the intent of the parties hereto that, where negligence is determined to have been contributory, principles of comparative negligence will be followed and each party shall bear the proportionate cost of any loss, damage, expense and liability attributable to that party's negligence.

Nothing in this agreement shall be construed to create any duty to any standard of care, with reference to or any liability, to any person not to a party to this agreement. Neither, Utility, its officers, agents, or employees shall be liable for any claims, demands, costs, losses, causes of action, or any other liability of any nature or kind, arising out of the engineering, design, construction, ownership, maintenance or operation of, or making of replacements, additions or betterment to customer's facilities, by customer or any other person or entity.

Neither, Utility, its officers, agents or employees, shall be liable for damages to the electrical generating equipment caused by an electrical disturbance on the Utility system or on the system of another, whether or not the electrical disturbance results from the negligence of Utility.

8. GOVERNING LAW:

This agreement shall be interpreted, governed, and construed under the laws of the state of New Mexico as executed and to be performed wholly within the state of New Mexico.

9. AMENDMENT, MODIFICATIONS OR WAIVER:

Any amendments or modifications to this agreement shall be in writing and agreed to, by

both parties. The failure of any party at any time or times to require performance of any provision hereof shall in no manner affect the right at a later time to enforce the same. No waiver by any party of the breach of any term or covenant contained in this agreement, whether by conduct or otherwise, shall be deemed to be construed as a further or continuing waiver of any such breach or a waiver of the breach of any other term or covenant unless such waiver is in writing.

10. NOTICES: All written notices shall be directed as follows:

Attention: Kit Carson Electric Cooperative

Kit Carson Electric Cooperative
118 Cruz Alta Road
P.O. Box 578
Taos, N.M. 87571

Attention: CUSTOMER

Name: _____
Address: _____
City: _____

Customer notices to Utility pursuant to section 10 of this agreement shall refer to the Customer's electric service account number set forth in section one (1) of this agreement.

11. TERM OF AGREEMENT:

This agreement shall be in effect when signed by the Customer and Utility and shall remain in effect thereafter month to month unless terminated by either party on thirty (30) days prior written notice in accordance with section nine (9).

12. ASSIGNMENT:

This agreement and all provisions, hereof, shall inure to and be binding upon the respective parties hereto, their personal representatives, heirs, successors, and assigns. Customer shall not assign this agreement or any part hereof without the prior written consent of Utility, and such unauthorized assignment may result in the termination of this agreement in accordance with section ten (10).

13. APPENDICES:

This agreement includes the following appendices or attachments, as labeled and incorporated herein by reference:

Utility's Interconnection Standards for Qualifying Facilities: 10 kW or less.

Customer's written request to Utility of intent to interconnect Qualifying Facility.

Customer's sketch or one line diagram, onsite drawing, and generation and protection equipment specifications.

Utility's Written Authorization to Interconnect.

IN WITNESS WHEREOF, the parties have caused two originals of this agreement to be executed by their duly authorized representatives. This agreement is effective as of the last date set forth below.

CUSTOMER:

By: _____

Name: _____

Title: _____

Date: _____

UTILITY:

By: _____

Name: _____

Title: _____

Date: _____

EXHIBIT 1B
Standard Interconnection Application
Generating Facilities with Rated Capacities
Greater Than 10 kW

A Customer-Generator applicant ("Applicant") hereby makes application to _____ (Utility) to install and operate a generating facility with rated capacity greater than 10 kW interconnected with the _____ utility system.

Written applications should be submitted by mail, e-mail or fax to [insert utility name], as follows:

[Utility]: _____
[Utility's address]: _____
Fax Number: _____
E-Mail Address: _____
[Utility] Contact Name: _____
[Utility] Contact Title: _____

An application is a Complete Application when it provides all applicable information required below. (Additional information to evaluate a request for interconnection may be required and will be so requested from the Interconnection Applicant by Utility after the application is deemed complete).

SECTION 1. APPLICANT INFORMATION

Legal Name of Interconnecting Applicant (or, if an Individual, Individual's Name)

Name: _____

Mailing Address: _____

City: _____; State: _____; Zip Code: _____

Facility Location (if different from above): _____

Telephone (Daytime): _____

Telephone (Evening): _____

Fax Number: _____

E-Mail Address: _____

Utility _____

(Existing Account Number, if generator to be interconnected
on the Customer side of a utility revenue meter)

Type of Interconnect Service Applied for (choose one): _____ Network Resource,
_____ Energy Only, _____ Load Response (no export) _____ Net metering

SECTION 2. GENERATOR QUALIFICATIONS

Data apply only to the Generating Facility, not the Interconnection Facilities.

Energy Source: ☐ Solar, ☐ Wind, ☐ Hydro, ☐ Hydro Type (e.g. Run-of-River): _____, ☐ Diesel, ☐ Natural Gas, ☐ Fuel Oil, ☐ Other (state type) _____

Prime Mover: ☐ Fuel Cell, ☐ Recip. Engine, ☐ Gas Turbine, ☐ Steam Turbine, ☐ Microturbine, ☐ PV, ☐ Other _____

Type of Generator: ☐ Synchronous ☐ Induction ☐ Inverter

Generator Nameplate Rating: _____ kW (Typical); Generator Nameplate kVA: _____

Interconnection Customer or Customer-Site Load: _____ kW (if none, so state)

Typical Reactive Load (if known): _____

Maximum Physical Export Capability Requested: _____ kW

List components of the Generating Facility Equipment Package that are currently certified:

	Equipment Type	Certifying Entity
1.		
2.		
3.		
4.		
5.		

Is the prime mover compatible with the certified protective relay package?
☐ Yes ☐ No

Generator (or solar collector)

Manufacturer, Model Name & Number:

Version Number:

Nameplate Output Power Rating in kW:

(Summer) _____; (Winter) _____

Nameplate Output Power Rating in kVA:

(Summer) _____; (Winter) _____

Individual Generator Power Factor

Rated Power Factor: Leading: _____ Lagging: _____

Total Number of Generators to be interconnected pursuant to this Interconnection Application: _____; Elevation: _____; ___ Single phase; ___ Three phase

Inverter Manufacturer, Model Name & Number (if used): _____

List of adjustable set points for the protective equipment or software: _____

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Application.

Generating Facility Characteristic Data (for inverter-based machines):

Max design fault contribution current: _____ Instantaneous or RMS?

Harmonics Characteristics: _____

Start-up requirements: _____

Generating Facility Characteristic Data (for rotating machines):

RPM Frequency: _____

(*) Neutral Grounding Resistor (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ P.U.

Direct Axis Transient Reactance, X'_d : _____ P.U.

Direct Axis Subtransient Reactance, X''_d : _____ P.U.

Negative Sequence Reactance, X_2 : _____ P.U.

Zero Sequence Reactance, X_0 : _____ P.U.

KVA Base: _____

Field Volts: _____

Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____

I^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____

Stator Resistance, R_s : _____

Stator Reactance, X_s : _____

Rotor Reactance, X_r : _____

Magnetizing Reactance, X_m : _____

Short Circuit Reactance, X_d'' : _____

Exciting Current: _____

Temperature Rise: _____

Frame Size: _____

Design Letter: _____

Reactive Power Required In Vars (No Load): _____

Reactive Power Required In Vars (Full Load): _____

Total Rotating Inertia, H: _____ Per Unit on kVA Base

Note: Please contact the Utility prior to submitting the Interconnection Application to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only:

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

SECTION 3. INTERCONNECTION FACILITIES INFORMATION

Will a transformer be used between the generator and the Point of Common Coupling?
___ Yes ___ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: ___ single phase ___ three phase? Size: ___ kVA
Transformer Impedance: ___ percent on ___ kVA Base
If Three Phase:
Transformer Primary: ___ Volts ___ Delta ___ Wye ___ Wye Grounded
Transformer Secondary: ___ Volts ___ Delta ___ Wye ___ Wye Grounded
Transformer Tertiary: ___ Volts ___ Delta ___ Wye ___ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)
Manufacturer: ___ Type: ___ Size: ___
Speed: ___

Interconnecting Circuit Breaker (if applicable):

Manufacturer: ___ Type: ___
Load Rating (Amps): ___ Interrupting Rating (Amps): ___ Trip Speed (Cycles): ___

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1.		
2.		
3.		
4.		
5.		
6.		

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: ___ Type: ___ Style/Catalog No.: ___ Proposed Setting: ___

Manufacturer:	Type:	Style/Catalog No.:	Proposed Setting:
Manufacturer:	Type:	Style/Catalog No.:	Proposed Setting:
Manufacturer:	Type:	Style/Catalog No.:	Proposed Setting:
Manufacturer:	Type:	Style/Catalog No.:	Proposed Setting:

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer:

Type: Accuracy Class: Proposed Ratio Connection: _____

Manufacturer:

Type: Accuracy Class: Proposed Ratio Connection: _____

Potential Transformer Data (If Applicable):

Manufacturer:

Type: Accuracy Class: Proposed Ratio Connection: _____

Manufacturer:

Type: Accuracy Class: Proposed Ratio Connection: _____

SECTION 4. GENERAL INFORMATION

Enclose copy of site electrical one-line diagram showing the configuration of all Generating Facility equipment, current and potential circuits, and protection and control schemes.

This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed?

____ Yes ____ No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed?

____ Yes ____ No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable). Are Schematic Drawings Enclosed?

____ Yes ____ No

TITLE 17 PUBLIC UTILITIES AND UTILITY SERVICES
CHAPTER 9 ELECTRIC SERVICES
PART 568 INTERCONNECTION OF GENERATING FACILITIES WITH A RATED CAPACITY
UP TO AND INCLUDING 10 MW CONNECTING TO A UTILITY SYSTEM

17.9.568.1 ISSUING AGENCY: New Mexico Public Regulation Commission.
[17.9.568.1 NMAC - N, 10/15/08]

17.9.568.2 SCOPE:

A. This rule, and the definitions, standards, procedures and screening processes described in the New Mexico *interconnection manual*, separately published and incorporated into this rule by reference, apply to every electric utility including rural electric cooperatives and investor-owned utilities operating within the state of New Mexico that is subject to the jurisdiction of the New Mexico public regulation commission. These standards and procedures apply to both qualifying and non-qualifying facilities.

B. The standards and procedures described in this rule (17.9.568 NMAC) and the **manual** apply only to the interconnection of generating facilities with a rated capacity up to and including 10 MW. The standards and procedures described in 17.9.569 NMAC apply to the interconnection of generating facilities with a rated capacity greater than 10 MW.

C. All interconnection contracts between a utility and an interconnection customer existing at the time 17.9.568 NMAC is adopted shall automatically continue in full force and effect. Any changes made to existing interconnection contracts shall conform to the provisions of 17.9.568 NMAC
[17.9.568.2 NMAC - N, 10/15/08]

17.9.568.3 STATUTORY AUTHORITY: This rule is adopted under the authority vested in this commission by the New Mexico Public Regulation Commission Act, NMSA 1978, Section 8-8-1 et seq. and the Public Utility Act, NMSA 1978, Section 62-3-1 et seq.
[17.9.568.3 NMAC - N, 10/15/08]

17.9.568.4 DURATION: Permanent.
[17.9.568.4 NMAC - N, 10/15/08]

17.9.568.5 EFFECTIVE DATE: October 15, 2008, unless a later date is cited at the end of a section
[17.9.568.5 NMAC - N, 10/15/08]

17.9.568.6 OBJECTIVE: The purpose of this rule and the **manual** is to set forth common interconnection requirements and a common interconnection process based on a common screening process for utilities and interconnection customers to expeditiously interconnect generating facilities with a rated capacity up to and including 10 MW in a safe and reliable manner. The parties shall use the procedures and forms set forth in this rule 17.9.568 NMAC and the **manual** for the interconnection of generating facilities with a rated capacity up to and including 10kW. The parties shall use the procedures and forms in this rule 17.9.568 NMAC and the **manual** for the interconnection of generating facilities with a rated capacity greater than 10 kW and up to and including 10 MW unless they mutually agree to other procedures or forms that are consistent with the Public Utility Act.
[17.9.568.6 NMAC - N, 10/15/08]

17.9.568.7 DEFINITIONS: Terms used in this rule 17.9.568 NMAC shall have the following meanings.

A. Business day means Monday through Friday, excluding holidays observed by the utility.

B. Certified equipment package means interconnection equipment that has been tested and listed by a nationally recognized testing and certification laboratory (NRTL) for continuous interactive operation with a utility grid and meets the definition for certification under order 2006, issued by the federal energy regulatory commission on May 12, 2005, in docket no. RM02-12-000. The extent of the equipment package is defined by the type of test performed to certify the package under IEEE 1547.1.

C. Certified inverter means an inverter that has been tested and listed by a nationally recognized testing and certification laboratory (NRTL) for continuous interactive operation with a utility grid and meets the definition for certification under order 2006, issued by the federal energy regulatory commission on May 12, 2005, in docket no. RM02-12-000.

D. Distribution system means the utility's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

E. Distribution upgrade means the additions, modifications, and upgrades to the utility's distribution system at or beyond the point of common coupling to facilitate interconnection of the generating facility and render the service necessary to effect the interconnection customer's operation of on-site generation. Distribution upgrades do not include interconnection facilities.

F. Facilities study means the study that specifies and estimates the cost of the equipment, engineering, procurement, and construction work (including overhead costs) needed to implement the conclusions of the system impact study.

G. Feasibility study means the study that identifies any potential adverse system impacts that would result from the interconnection of the generating facility.

H. Generating facility means the interconnection customer's device for the production of electricity identified in the interconnection application, including all generators, electrical wires, equipment, and other facilities owned or provided by the interconnection customer for the purpose of producing electric power.

I. Grid network means a secondary network system with geographically separated network units where the network-side terminals of the network protectors are interconnected by low-voltage cables that span the distance between sites. The low-voltage cable circuits of grid networks are typically highly meshed and supplied by numerous network units. Grid network is also commonly referred to as area network or street network.

J. Highly seasonal circuit means a circuit with a ratio of annual peak load to the lowest monthly peak load greater than six (6).

K. Impact study means a study that identifies and details the electric system impacts that would result if the proposed generating facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. An impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

L. Interconnection application means the request by an interconnection customer to interconnect a new generating facility, or to increase the capacity or make a material modification to the operating characteristics of an existing generating facility that is interconnected with the utility's system.

M. Interconnection customer means any person that proposes to interconnect its generating facility with the utility's system.

N. Interconnection facilities means the utility's interconnection facilities and the interconnection customer's interconnection facilities. Collectively, interconnection facilities include all facilities and equipment between the generating facility and the point of common coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the generating facility to the utility's system. Interconnection facilities are sole use facilities and shall not include distribution upgrades.

O. Line section means that portion of a utility's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

P. Manual means the New Mexico *interconnection manual* and its exhibits separately published and incorporated into this rule by reference.

Q. Network system means a collection of spot networks, secondary networks, or combinations of such networks on a primary network feeder or primary network feeders that supply them. This may also consist of primary feeders networked ("tied together") to supply connected loads.

R. Network transformer means a transformer designed for use in a vault to feed a variable capacity system of interconnected secondaries.

S. Party means the utility and the interconnection customer separately or in combination.

T. Person, for purposes of this rule, means an individual, firm, partnership, company, rural electric cooperative organized under Laws 1937, Chapter 100 or the rural electric cooperative act, corporation or lessee, trustee or receiver appointed by any court.

U. Point of common coupling means the point where the interconnection facilities connect with the utility's system.

V. Primary network feeder means a feeder that supplies energy to a network system or the combination of a network system and other radial loads. Dedicated primary network feeders are feeders that supply only network transformers for the grid network, the spot network, or both. Non-dedicated primary network feeders, sometimes called combination feeders, are feeders that supply both network transformers and non-network load.

- W.** Power conversion unit (PCU) means an inverter or AC generator, not including the energy source.
- X.** Qualifying facility means a cogeneration facility or a small power production facility which meets the criteria for qualification contained in 18 C.F.R. Section 292.203.
- Y.** Rated capacity means the total AC nameplate rating of the power conversion unit(s) at the point of common coupling.
- Z.** Secondary network system means an AC power distribution system in which customers are served from three-phase, four-wire low-voltage circuits supplied by two or more network transformers whose low-voltage terminals are connected to the low-voltage circuits through network protectors. The secondary network system has two or more high-voltage primary feeders, with each primary feeder typically supplying multiple network transformers, depending on network size and design. The secondary network system includes automatic protective devices intended to isolate faulted primary feeders, network transformers, or low-voltage cable sections while maintaining service to the customers served from the low-voltage circuits.
- AA.** Small utility means a utility that serves less than 50,000 customers.
- BB.** Spot network means a secondary network system consisting of two or more network units at a single site. The low-voltage network side terminals of these network units are connected together with bus or cable. The resulting interconnection structure is commonly referred to as the “paralleling bus” or “collector bus.” In spot networks, the paralleling bus does not have low-voltage ties to adjacent or nearby secondary network systems. Such spot networks are sometimes called isolated spot networks to emphasize that there are no low-voltage connections to network units at other sites.
- CC.** Study process means the procedure for evaluating an interconnection application that includes the scoping meeting, feasibility study, impact study, and facilities study.
- DD.** System means the facilities owned, controlled, or operated by the utility that are used to provide electric service under a utility’s tariff.
- EE.** System emergency means a condition on a utility system that is likely to result in imminent significant disruption of service to customers or is imminently likely to endanger life or property.
- FF.** Upgrade means the required additions and modifications to the utility’s system at or beyond the point of common coupling. Upgrades do not include interconnection facilities.
- GG.** Utility means a utility or public utility as defined in NMSA 62-3-3 (G) serving electric customers subject to the jurisdiction of the commission.
- [17.9.568.7 NMAC - N, 10/15/08]

17.9.568.8 APPLICABLE CODES AND STANDARDS:

- A.** The interconnection customer shall install, operate, and maintain the generating facility and the interconnection equipment in a safe manner in accordance with the rules for safety and reliability set forth in the latest editions of the *national electrical code*, other applicable local, state, and federal electrical codes, and prudent electrical practices.
- B.** In order to qualify for any interconnection procedures, each generating facility generator shall be in conformance with the following codes and standards as applicable:
- (1) IEEE 1547 standard for interconnecting distributed resources with electric power systems or equivalent IEEE 1547.1;
 - (2) IEEE standard conformance test procedures for equipment interconnecting distributed resources with electric power systems or equivalent; and
 - (3) UL 1741 Inverters, converters and controllers for use in independent power systems or equivalent.
- C.** The interconnection equipment package shall be considered certified for interconnected operation if the equipment package has been tested and listed by a nationally recognized testing and certification laboratory (NRTL) for continuous interactive operation with a utility grid and meets the definition for certification under order 2006, issued by the federal energy regulatory commission on May 12, 2005, in docket no. RM02-12-000.
- D.** The generating facility shall be designed to conform with all of the applicable requirements in the **manual**.
- [17.9.568.8 NMAC - N, 10/15/08]

17.9.568.9 INTERCONNECTION APPLICATION:

- A.** An interconnection customer shall submit its interconnection application to the utility using **manual** exhibit 1A or 1B as applicable, together with the fees specified in 17.9.568.12 NMAC. The utility shall record the date and time on the face of the interconnection application upon receipt by the utility. The original date and time recorded by the utility on the interconnection application at the time of its original submission shall be

accepted as the date and time on which the interconnection application was received for the purposes of any timetable established in this rule or the **manual**. Following submission of the interconnection application, the parties will follow the procedures and time requirements described in the **manual**.

B. The utility shall place interconnection applications in the order they are received. The order of each interconnection application will be used to determine the cost responsibility for the upgrades necessary to accommodate the interconnection. At the utility's option, interconnection applications may be studied serially or in clusters for the purpose of the system impact study.

[17.9.568.9 NMAC - N, 10/15/08]

17.9.568.10 INTERCONNECTION APPLICATION REVIEW PROCESS: The utility shall utilize the interconnection screening process and the screen criteria described in the **manual**. That screening process results in the application of one of the three general review paths described as follows:

A. simplified interconnection: for certified inverter-based facilities with a power rating of 10 kilowatts (kW) or less on radial or network systems under certain conditions;

B. fast track: for certified generating facilities that pass certain specified screens; or

C. full interconnection study: for generating facilities that have a power rating of 10 megawatts (MW) or less and do not qualify for the screens under the simplified interconnection process or fast track process.

[17.9.568.10 NMAC - N, 10/15/08]

17.9.568.11 INTERCONNECTION APPLICATION REVIEW FLOW CHART AND SCREEN CRITERIA: Utilities shall use the screen criteria described in the **manual** to evaluate all interconnection applications.

[17.9.568.11 NMAC - N, 10/15/08]

17.9.568.12 GENERAL PROVISIONS APPLICABLE TO INTERCONNECTION APPLICATIONS:

A. An interconnection customer shall pay the following application fee to the utility at the time it delivers its interconnection application to the utility:

(1) \$50 if the proposed generating facilities will have a rated capacity less than or equal to 10 kW;

(2) \$100 if the proposed generating facilities will have a rated capacity greater than 10 kW and less than or equal to 100 kW; or

(3) \$100 + \$1 per kW if the proposed generating facilities will have a rated capacity greater than 100 kW.

B. In addition to the fees authorized by this rule, a small utility may collect from the interconnection customer the reasonable costs incurred to obtain necessary expertise from consultants to review interconnection applications for generating facilities with rated capacities greater than 10 kW. A small utility shall provide a good faith estimate of the costs of such consultants to an interconnection customer within ten (10) business days of the date the interconnection application is delivered to the utility.

C. Commissioning tests of the interconnection customer's installed equipment shall be performed pursuant to applicable codes and standards, including IEEE 1547.1 "IEEE standard conformance test procedures for equipment interconnecting distributed resources with electric power systems." A utility must be given at least five (5) business days written notice of the tests, or as otherwise mutually agreed to by the parties, and may be present to witness the commissioning tests. An interconnection customer shall reimburse a utility for its costs associated with witnessing commissioning tests performed pursuant to the **manual** except that a utility may not charge a fee in addition to the application fee for the cost of witnessing commissioning tests for inverter-based generating facilities that have rated capacities that are less than or equal to 25 kW.

D. If an interconnection customer requests an increase in capacity for an existing generating facility, the interconnection application shall be evaluated on the basis of the new total capacity of the generating facility. If an interconnection customer requests interconnection of a generating facility that includes multiple energy production devices at a site for which the interconnection customer seeks a single point of common coupling, the interconnection application shall be evaluated on the basis of the aggregate capacity of the multiple devices.

F. All interconnection applications shall be evaluated using the maximum rated capacity of the proposed generating facility.

G. The commission may designate a facilitator to assist the parties in resolving disputes related to this rule and the **manual**. The parties to a dispute will be responsible for the costs of dispute resolution, if any, as determined by the facilitator subject to review by the commission.

H. Confidential information shall remain confidential unless otherwise ordered by the commission. Confidential information shall mean any confidential and proprietary information provided by one party to the other party that is clearly marked or otherwise designated "confidential".
[17.9.568.12 NMAC - N, 10/15/08]

17.9.568.13 GENERAL PROVISIONS APPLICABLE TO UTILITIES:

A. A utility shall interconnect any interconnection customer that meets the interconnection criteria set forth in this rule and in the **manual**. A utility shall make reasonable efforts to keep the interconnection customer informed of the status and progress.

B. Utilities shall reasonably endeavor to aid and assist interconnection customers to insure that a proposed generating facility's interconnection design, operation, and maintenance are appropriate for connection to the utility's system. This may include consultations with the interconnection customer and its engineering and other representatives.

C. Utilities shall make reasonable efforts to meet all time frames provided for in this rule unless a utility and an interconnection customer agree to a different schedule. If a utility cannot meet a deadline provided herein, it shall notify the interconnection customer, explain the reason for its inability to meet the deadline, and provide an estimated time by which it will complete its activity.

D. Utilities shall use the same reasonable efforts in processing and analyzing interconnection applications from all interconnection customers, whether the generating facility is owned or operated by the utility, its subsidiaries or affiliates, or others.

E. Utilities shall maintain records for three years of each interconnection application received, the times required to complete each interconnection application approval or disapproval, and justification for the utility's disapproval of any interconnection application.

F. Utilities shall maintain current, clear and concise information regarding this rule including the name, telephone number, and email address of contact persons. The information shall be easily accessible on the utility's website beginning within one month of the effective date of this rule, or the information may be provided in bill inserts or separate mailings sent no later than one month after the effective date of this rule and no less often than once each year thereafter. Each utility shall maintain a copy of this rule and the **manual** at its principal office and make the same available for public inspection and copying during regular business hours.

G. A small utility that uses a consultant to review a proposal to interconnect a generating facility with the small utility's system may extend each of the time deadlines for review of the fast track process by a period not to exceed twenty (20) business days provided that the small utility shall make a good faith effort to complete the review sooner.

H. Compliance with this interconnection process does not constitute a request for, nor provision of any transmission delivery service, or any local distribution delivery service. Interconnection under this rule does not constitute an agreement by the utility to purchase or pay for any energy, inadvertently or intentionally exported.
[17.9.568.13 NMAC - N, 10/15/08]

17.9.568.14 GENERAL PROVISIONS APPLICABLE TO INTERCONNECTION CUSTOMERS:

A. The cost of utility system modifications required pursuant to the fast track process or the full interconnection study process shall be borne by the interconnection customer unless otherwise agreed by the parties.

B. An interconnection customer shall have thirty (30) business days (or other mutually agreeable period) following receipt of an interconnection agreement to execute the agreement and return it to the utility. If the interconnection customer does not execute the interconnection agreement and return it to the utility within the applicable period, the interconnection application shall be deemed withdrawn. After all parties execute an interconnection agreement, interconnection of the generating facility shall proceed under the provisions of the interconnection agreement.

C. An interconnection customer is responsible for the prudent maintenance and upkeep of its interconnection equipment.

D. Upon the petition of a utility, for good cause shown, the commission may require a customer with a generating facility with a rated capacity of 250 kW or less to obtain general liability insurance prior to connecting with a public utility. A utility may require that an interconnection customer proposing to connect a generating facility with a rated capacity greater than 250 kW provide proof of insurance with reasonable limits not to exceed \$1,000,000 or other reasonable evidence of financial responsibility.
[17.9.568.14 NMAC - N, 10/15/08]

17.9.568.15 SAFETY PROVISIONS:

A. An interconnection customer shall separate from the utility system in the event of any one or more of the following conditions:

- (1) a fault on the generating facility's system; or
- (2) a generating facility contribution to a utility system emergency; or
- (3) abnormal frequency or voltage conditions on the utility's system; or
- (4) any occurrence or condition that will endanger utility employees or customers; or
- (5) a generating facility condition that would otherwise interfere with a utility's ability to provide safe and reliable electric service to other customers; or
- (6) the sudden loss of the utility system power.

B. A visible-open, load break disconnect switch between the generating facility and the utility system that is visibly marked "generating facility generation disconnect" and is accessible to and lockable by the utility is required for all generating facilities except for those generating facilities with a maximum capacity rating of 10 kW or less that use a certified inverter including a self-contained renewable energy certificate (REC) meter and either:

- (1) a utility accessible AC load break disconnect; or
- (2) a utility accessible DC load break disconnect where there is no other source of generated or stored energy connected to the system.

C. Interconnection customers shall post a permanent and weather proof one-line electrical diagram of the generating facility located at the point of service connection to the utility. Generating facilities where the disconnect switch required by Subsection B of 17.9.568.15 NMAC is not located in close proximity to the utility meter must post a permanent and weather proof map showing the location of all major equipment including the utility meter point, the generating facility generation disconnect, and the generating facility generation breaker. Non-residential generating facilities larger than 10 kW shall include with or attached to the map the names and current telephone numbers of at least two persons authorized to provide access to the generating facility and who have authority to make decisions regarding the generating facility interconnection and operation.

D. If the generating facility interconnection equipment package is not certified or if a certified equipment package has been modified, the generating facility interconnection equipment package shall be reviewed and approved by a professional electrical engineer, registered in the state of New Mexico.
[17.9.568.15 NMAC - N, 10/15/08]

17.9.568.16 VARIANCES: A party may file a request for a variance from the requirements of this rule. Such application shall describe the reasons for the variance; set out the effect of complying with this rule on the parties and the utility's customers if the variance is not granted; identify the section(s) of this rule for which the variance is requested; describe the expected result which the request will have if granted; and state how the variance will aid in achieving the purposes of this rule. The commission may grant a request for a procedural variance through an order issued by the chairman, a commissioner or a designated hearing examiner. Other variances shall be presented to the commission as a body for determination.

[17.9.568.16 NMAC - N, 10/15/08]

HISTORY OF 17.9.568 NMAC: [RESERVED]