Northern Rio Arriba Electric Cooperative, Inc.
NMPRC Rules 568 EXHIBIT 1B
Standard Interconnection Application
Generating Facilities with Rated Capacities
Greater Thank 10 kW

A Customer-Generator applicant ('Applicant") hereby makes application to Northern Rio Arriba Electric Cooperative, Inc. (Utility) to install and operate a generating facility with rate capacity greater than 10 kW interconnected with the _____ utility system.

Application Fee:
$100 for facilities from 10 kW to 100 kW
$100 plus $1 per kW for facilities greater than 100 kW

As authorized by NMPRC Rule 17.9.568.12, if the above fees do not cover the total costs, 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 great than 10kW. 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.

Written application should be submitted by mail or by email to Northern Rio Arriba Electric Cooperative, Inc., as follows:

[Utility]: Northern Rio Arriba Electric Cooperative, Inc.
[Utility mailing address]: PO Box 217 Chama, NM 87520
[Utility physical address]: 1135 Camino Escondido Chama, NM 87520
E-mail Address: nora@noraelectric.org
[Utility] Contact Name: Mr. Benjamin Leyba
[Utility] Contact Title: Executive Vice-President/General Manager

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 Interconnection Application (or, if an Individual, Individual's Name)
Name:_____
Mailing Address: _____
City:_____; State:_____; Zip Code:_____
Facility Location (if different from above):_____
Telephone (Daytime):_____
Telephone (Evening):_____
E-Mail Address:_____

_____
(Utility) (Existing Account Number, if generator to be interconnected on the Customer side of the 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, Xd: _____ P.U.
Direct Axis Transient Reactance, X' d: _____ P.U.
Direct Axis Subtransient Reactance, X" d: _____ P.U.
Negative Sequence Reactance, X2: _____ P.U.
Zero Sequence Reactance, X0: _____ P.U.
KVA Base: _____
Field Volts: _____
Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____
I2t or K (Heating Time Constant): _____
Rotor Resistance, Rr: _____
Stator Resistance, Rs: _____
Stator Reactance, Xs: _____
Rotor Reactance, Xr: _____
Magnetizing Reactance, Xm: _____
Short Circuit Reactance, Xd": _____
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

SECTION 5. APPLICANT SIGNATURE

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct. I also agree to install a Warning Label provided by (utility) on or near my service meter location. Generating systems must be compliant with IEEE, NEC, ANSI, and UL standards, where applicable. By signing below, the Applicant also certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.

Signature of Applicant: _____

Date: _____

SECTION 6. INFORMATION REQUIRED PRIOR TO PHYSICAL INTERCONNECTION

(Not required as part of the application, unless available at time of application.)

Installing Electrician: _____ Firm: _____

License No.: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____

Installation Date: _____

Interconnection Date: _____

Signed (Inspector – if required): _____

Date: _____

(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Northern Rio Arriba Electric Cooperative, Inc.
NMPRC RULE 568 EXHIBIT lA
Simplified Interconnection Application
Certified Inverter-Based Generating Facilities
With a Rated Capacity, up to and including lOkW AC

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A fee of $50 must accompany this Application.

Interconnection Customer

Name:

Contact Person:

Address:

City: State: Zip:

Telephone (Day): (Evening):

E-Mail Address:

Engineering Firm (If Applicable):

Contact Person:

Address:

City: State: Zip:

Telephone:

E-Mail Address:

Contact (if different from Interconnection Customer)

Name:

Address:

City: State: Zip:

Telephone (Day): (Evening):

E-Mail Address:

Owner of the facility (include % ownership by any electric utility):

Generating Facility Information:

Location (if different from above):

Electric Service Company:

Account Number:

Generator 10 kW Inverter Process:

Inverter Manufacturer: _____ Model

Nameplate Rating: (kW) (kVA) (AC Volts)

Single Phase _____ Three Phase_____

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: Photovoltaic, Reciprocating Engine, Fuel Cell, Turbine, Other (describe)

Energy Source: Solar, Wind, Hydro, Diesel, Natural Gas, Fuel Oil, Other (describe)

Is the equipment UL1741 Listed? Yes ____ No ____

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

The 10 kW Inverter Process is available only for inverter-based Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachment 3 of the Generator Interconnection Procedures (SGIP), or the QRU has reviewed the design or tested the proposed Generating Facility and is satisfied that it is safe to operate.

List components of the Generating Facility equipment package that are currently certified:

Equipment Type Certifying Entity

1.

2.

3.

4.

5.

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Generating Facility No Larger than 10kW contained in the New Mexico Interconnection Manual, Exhibit 3A and return the notice of completion when the Generating Facility has been installed.

Signed: _____

Title:

Date:

Utility Signature

The undersigned Utility agrees to abide by the Terms and Conditions contained in the New Mexico Interconnection Manual, Exhibit 3A and that optional paragraph 6.0 Indemnification ☐ applies ☐ does not apply.

Signed: _____

Title: _____

Date _____