Northern Rio Arriba Electric Cooperative, Inc.
NMPRC Rule 568 EXHIBIT 1B
Standard Interconnection Application
Generating Facilities with Rated Capacities
Greater Than 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 rated capacity greater than 10 kW interconnected with the _____ utility system.

Application Fee:

$150 if the proposed generating facility will have a nameplate rating of less than or equal to 25kW

$300 if the proposed generating facility will have a nameplate rating of greater than 25kW and less than or equal to 100kW

$300 + $1.00 per kW if the proposed generating facility will have a nameplate rating greater than 100kW;

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 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.

Written applications should be submitted by mail, e-mail or fax to NORA Electric Cooperative, Inc., as follows:

Northern Rio Arriba Electric Cooperative, Inc.
1135 Camino Escondio Chama NM 87520
Fax Number: 575-756-2200
E-Mail Address: ashley@noraelectric.org
Contact Name: Ms. Ashley Rendon
Contact Title: Director of Consumer Services

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, 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.
The Consumer expressly understands and agrees that all Environmental Attributes (defined below) that are created or produced by the installation, existence and operation of a net-metered renewable energy generator system shall belong to NORTHERN RIO ARRIBA ELECTRIC COOPERATIVE, INC. and the Consumer has not and will not use the Environmental Attributes for any other purpose. NORTHERN RIO ARRIBA ELECTRIC COOPERATIVE, INC. may report or register ownership of the Environmental Attributes with any entity and may utilize those Environmental Attributes (or transfer them) in any manner. NORTHERN RIO ARRIBA ELECTRIC COOPERATIVE, INC. or its assignee may also register the net-metered renewable energy generator system with any entity for purposes of tracking and transferring Environmental Attributes shall be for the entire term of member net-metered contract, including any Environmental Attributes that are reserved or "banked" during the course of the term of any such contract agreement but not used, sold assigned or otherwise transferred during the term of any such contract agreement. "Environmental Attributes" means any and all environmental characteristics that are attributable to renewable energy such as a) green tags, b) renewable energy credits (RECs), c) greenhouse of gas or emissions reductions, d) credits, offset, allowances or benefits, e) any avoided emissions of pollutants to the air, soil, or water, including sulfur oxides (SO2), nitrogen oxides (NOX), carbon dioxide (CO2), carbon monoxide (CO), methane (CH4), nitrous oxide, carbon, volatile organic compounds, (VOC), mercury, and other emissions avoided, and f) any and all other green energy or other environmental benefits associated with the generation of renewable energy – regardless of how any present or future law or regulation attributes or allocates such characteristics.

Signature of Applicant: _____ Date: _____

Name (printed)_____

Address_____

Telephone #_____

NORA Account #_____

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)