

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:

Motor 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)