

**Forms and Agreements 4: Level 2, Level 3 and Level 4
Interconnection Application**

A Customer-Generator applicant ("Applicant") hereby makes application to _____ (Utility or T & D Utility) to install and operate a generating facility interconnected with the _____ utility system. This application will be considered as an application for interconnection of generators under Expedited interconnection review provided the generator is not greater than 2 MW but shall serve as an Application for Standard interconnection review if greater than 2 MW or if Expedited review does not qualify the generator for interconnection.

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)

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Type of Interconnect Service Applied for _____ Network Resource, _____
(choose one)

Energy Only, _____ Load Response (no export) _____ Net metering

Section 2. Generator Qualifications

Data apply only to the Small 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 Turb. ____ Steam Turb. ____
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 Small 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: _____

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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 in wind farm to be interconnected pursuant to this
Interconnection Request: _____ 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 Request.

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

Max design fault contribution current: _____ Instantaneous or RMS? _____

Harmonics Characteristics: _____

Start-up requirements: _____

Small 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: _____

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Field Volts: _____
Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____
I²t 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 T & D Utility prior to submitting the Interconnection Request 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

Will the transformer be provided by the Interconnection Customer? ___ 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

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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: _____

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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 Small 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 Small 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 Small 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):

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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.

Signed: _____ 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: _____ Date: _____
(Inspector - if required)

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