

Application for Electrical Interconnection

Non-Net Metering Generating Facility – Level 1, 2 or 3 Interconnection Review
(For ~~Generating~~ Facilities with Electric Nameplate Capacities between above 265 kW and and no Larger than 20 MW and less)

Instructions

An Interconnection Customer who requests a ~~Federal Energy Regulatory Commission~~ Utah Public Service Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, or delivery service to the public utility, PacifiCorp, d/b/a Rocky Mountain Power. This application should be completed by Interconnection Customers that are not eligible for net metering and with facility nameplate capacities between above 256 kW and and no larger than 20 MW. The Interconnection Customer is to complete all fields of this application form to the extent that such requested information is applicable to the proposed ~~G~~ generating ~~F~~ facility. If questions exist about the applicability of the requested information or assistance is needed, please contact the designated contact person identified below:

Designated Contact Person: Laura Raypush

Address: 825 NE Multnomah, Suite 1600, Portland, OR 97232

Telephone Number: 503-813-7040

Facsimile Number: 503-813-6893

E-Mail Address: laura.raypush@pacificorp.com

Legal Name of the Customer (or, if an individual, individual's name):

Name: _____

Contact Person: _____

Mailing Address: _____

Physical Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____

E-Mail Address: _____

Address of Customer Facility Where Proposed Generating Facility will be Interconnected:

Street Address: _____

City: _____ State: _____ Zip Code: _____

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Requested Point of Interconnection: _____

Interconnection Customer's Requested In-Service Date: _____

Is Facility going to be a Qualified Facility (“QF”)? Yes No

If yes, has Applicant completed FERC “Notice of Self Certification”? Yes No

Requested Procedure Under Which to Evaluate Interconnection Request¹:

Please indicate below which review procedure applies to the interconnection request.

~~Level 1 – Certified, inverter based generating facility with an aggregate nameplate capacity of 25kW or less. An application fee is not required. Proof provided demonstrating certification with the following standards as applicable; please indicate type of certification below:~~

~~IEEE standards; and,~~

~~UL Standards 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems (January 2001).~~

Level 2 - Certified interconnection equipment with an aggregate electric nameplate capacity of 2 MW or less. Generation facility does not qualify for a Level 1 review or has been reviewed but not approved under a Level 1 review. The application fee amount is \$50 plus \$1.00 per kW of the generation Generating Facility’s capacity. Proof provided demonstrating certification with the following standards as applicable; please indicate type of certification below:

IEEE sStandard 1547s; and,

UL Standards 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems (January 2001).

Level 3 – Aggregate electric nameplate capacity rating is 20 MW or less and the Generating facility is not certified; does not qualify for a Level 1 or Level 2 review; or has been reviewed but not approved under a Level 1 or Level 2 review. The application fee amount is \$100 plus \$2.00 per kW of the gGeneratingon fFacility’s capacity.

¹ **Note:** Descriptions for interconnection review categories do not list all Level 2 and 3 criteria that must be satisfied. For a complete list of criteria, please refer to R746-312, Electrical Interconnection. Level 1 interconnection review of inverter-based Generating Facilities having a generation capacity of 25 kW or less requires a separate application form.

Generating Facility Information:

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

Prime Mover: Fuel Cell Reciprocating Engine Gas Turbine
 Steam Turbine Microturbine PV
 Other _____

Type of Generator: Synchronous Induction Inverter

Generator Nameplate Rating: _____ kW (Typical) Generator Nameplate kVAR: _____

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 (include proof from manufacture of certification in accordance with R746-312-5, Certifications):

Equipment Type or Package	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) _____

Rated Power Factor: Leading: _____ Lagging: _____

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Total Number of Generators in generation facility 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.

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

Manufacturer: _____ Model: _____

Type: Forced Commutated Line Commutated

Electric Nameplate Capacity Rated Output: _____ Amps _____ Volts _____ kW

Efficiency: _____ % Power Factor: _____ %

Max design fault contribution current: _____ Instantaneous RMS

Harmonics characteristics: _____

Start-up requirements: _____

Proposed Generating Facility Characteristic Data (for rotating machines):

RPM Frequency: _____

(*) Neutral Grounding Resistor (if applicable): _____

Synchronous Generators:

Submit copies of the Saturation Curve and the Vee Curve.

Salient Non-Salient

Torque: _____ lb-ft Rated RPM: _____

Field Amperes: _____ at rated generator voltage and current and _____ % PF over-excited

Type of Exciter: _____

Output Power of Exciter: _____

Type of Voltage Regulator: _____

Locked Rotor Current: _____ Amps

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Synchronous Speed: _____ RPM

Min. Operating Freq./Time: _____

Generator Connection: Delta Wye Wye Grounded

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: _____

~~Provide appropriate IEEE model block diagram of excitation system and governor system in accordance with the regional reliability council criteria (WECC/NERC Reliability Standard MOD-012-0). A copy of the manufacturer's block diagram may not be substituted.~~

Induction Generators:

Manufacturer: _____

Model No.: _____ Version No.: _____

Locked Rotor Current: _____ Amps

Phases: Single Three-Phase

Motoring Power (kW): _____

I_2^2t 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: _____

Frame Size: _____ Design Letter: _____ Temp. Rise: _____ °C.

Reactive Power Required In Vars (No Load): _____

Reactive Power Required In Vars (Full Load): _____

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

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.

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

Interconnection Customer Transformer Data (please provide information for all transformers, attach é separate sheet if necessary):

Is the transformer: single phase three phase Size: _____ kVA

Transformer Impedance: _____ % on _____ kVA Base

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. _____	_____	_____

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- 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: _____
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- 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: _____

Other Facility Information:

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Enclose copy of site electrical one-line diagram showing the configuration of total proposed Generating Facility equipment, current and potential circuits, and protection and control schemes. Please include system impedance and distance for all segments of the generating facility.

One Line Diagram attached: 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, distance from public utility facility number, other diagram or documentation).

Plot Plan attached: Yes No

Enclose copy of any documents that provide proof of site control.

Site Control attached: Yes No

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Applicant Signature:

I hereby certify that all of the information provided in this application request form is correct.

Applicant Signature: _____

Name: _____

Title: _____ Date: _____

An application fee may be required before the application can be processed. Please verify that the appropriate fee is included with the application:

Application fee included: Yes No

Amount \$ _____

Printed Name: _____ Title: _____