

PSNH INTERCONNECTION REQUEST

Send the completed Interconnection Request and required attachments to:

Public Service of New Hampshire
Attn: Michael Motta, Senior Engineer – Supplemental Energy Sources
P. O. Box 330
Manchester, NH 03105

Telephone Number: 603-634-2920
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An Interconnection Request is considered complete when it provides all applicable and correct information required below.

Documentation that the applicant has control of the property on which the proposed facility shall be located must be submitted with the Interconnection Request. The documentation may include proof of ownership, a leasehold interest, a right to develop, or an option to acquire the site.

A site electrical one-line diagram showing the configuration of the Generating Facility equipment, current and potential circuits, and protection control schemes. The one-line diagram must be signed and stamped by a licensed Professional Engineer.

Interconnection Customer Information:

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

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Interconnection Customer Information:

Alternative Contact Information (if different from the Interconnection Customer)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Is the Interconnection Request for:

New Generating Facility?

Yes No

Capacity addition to or Material Modification of an existing Generating Facility:

Yes No

If capacity addition or Material Modification of an existing facility, please describe:

Commencement of participation in the wholesale markets by an existing Generating Facility:

Yes No

A retail customer interconnecting a New Generating Facility that will produce electric energy to be consumed only on the retail customer's site?

Yes No

If onsite use of power, describe the mode of operation: (Please Check all that Apply)

- Peak Shaving
- Demand Management
- Primary Power/Base Load
- Combined Heat and Power or Cogeneration

- Stand By/Emergency/Back-up
- Net Metering

If Net Metering, does the Generating Facility meet the requirements for eligibility as defined in Puc 902.01 for a “Combined Heat and Power System” and/or Puc 902.02 for a “Customer-Generator” of Chapter Puc 900 Net Metering for Customer Owned Renewable Energy Generation Resources of 1000 Kilowatts or Less.

Puc 902.01 “Combined heat and power system” means a “combined heat and power system” as defined on RSA 321-A:1-a, II-d, namely “a new system installed after July 1, 2011, that produces heat and electricity from one fuel input using an eligible fuel, without restriction to generating technology, has an electric generating capacity rating of at least one kilowatt and not more than 30 kilowatts and a fuel system efficiency of not less than 80 percent in the production of heat and electricity, or has an electric generating capacity greater than 30 kilowatts and not more than one megawatt and a fuel system efficiency of not less than 65 percent in the production of heat and electricity. Fuel system efficiency shall be measured as a usable thermal and electrical output in BTU’s divided by fuel input in BTU’s.”

Puc 902.02 “Customer-generator” means “eligible customer-generator” as defined in RSA 362-A:1-a, II-b, namely “an electric utility customer who owns or operates an electrical generating facility either powered by renewable energy or which employs a heat led combined heat and power system, with a total peak generating capacity of not more than 100 kilowatts, or that first began operation after July 1, 2010 and has a total peak generating capacity of 100 kilowatts or more up to one megawatt, that is located behind a retail meter on the customer’s premises, is interconnected and operates in parallel with the electric grid, and is used in the first instance to offset the customer’s own electricity requirements”.

Yes No

Interconnection Customer Signature _____ Date _____

A Qualifying Facility where 100% of the output will be sold to PSNH?

Yes No

A Qualifying Facility intending to sell power at wholesale to an entity other than PSNH?

Yes No

A Generator interconnecting a new Generating Facility that plans to participate in the wholesale markets?

Yes No

An existing Generating Facility commencing participation in the wholesale markets?

Yes No

Paralleling:

Will the Generating Facility operate in parallel with the PSNH system for any amount of time?

Yes No

If No: Then Generator is operating as "Open" Transition.

If Yes: Will the Generating Facility operate in parallel with PSNH for longer than 100 milliseconds?

Yes No

If No: Then Generator is operating as "Closed" Transition.

If Yes: Then Generator is operating as "Parallel Operation."

Will the generator operation vary by season? (Please describe)

For installations at locations with existing electric service to which the proposed Generating Facility will interconnect, provide:

Account # _____

Energy Service Provider (if other than PSNH) _____

Meter # _____

Contact Name: _____

Title: _____

Address: _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Requested Point of Interconnection: _____

Generating Facility's Requested In-Service Date: _____

Generating Facility Information:

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 Reciprocating Engine Gas Turbine
Steam Turbine Micro-turbine PV

Other (state type) _____

Type of Generator: Synchronous Induction Inverter

Generator Manufacturer: _____

Generator Model Name & Number: _____

Generator Version Number: _____

Generator Nameplate Rating: _____ kW (Typical) For Inverter-based machines the kW rating of the inverter, and for all other interconnections the kW rating of the generation unit.

Generator Nameplate kVAR: _____

Generating Facility or Customer-Site Load: _____ kW (if none, so state)

Typical Reactive Load (if known): _____

Maximum Physical Export Capability Requested: _____ kW

Generator Nameplate Output Power Rating in kW:

(Summer) _____ (Winter) _____

Generator Nameplate Output Power Rating in kVA:

(Summer) _____ (Winter) _____

Individual Generator Power Factor:

Rated Power Factor: Leading _____ Lagging _____

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

Inverter Manufacturer: _____

Model Name & Number: _____

Is the Inverter UL 1741 listed? Yes No

Is the Inverter IEEE 1547 listed? Yes No

Is the Inverter IEEE 1547.1 listed? Yes No

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

Harmonics Characteristics: _____

Start-up requirements: _____

Available fault current: _____

Wind Farm Interconnection:

Total Number of Generators in wind farm to be interconnected pursuant to this Interconnection

Request:

Quantity: _____ Elevation: _____ Single Phase Three Phase

Generating Facility Characteristic Data (for rotating machines):

Speed: _____ RPM

Neutral Grounding Resistor (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ Per Unit

Direct Axis Transient Reactance, X_d' : _____ Per Unit

Direct Axis Sub transient Reactance, X_d'' : _____ Per Unit

Negative Sequence Reactance, X_2 : _____ Per Unit

Zero Sequence Reactance, X_0 : _____ Per Unit

KVA Base: _____

Field Volts: _____

Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____

I_2^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____ Per Unit

Stator Resistance, R_s : _____ Per Unit

Stator Reactance, X_s : _____ Per Unit

Rotor Reactance, X_r : _____ Per Unit
Magnetizing Reactance, X_m : _____ Per Unit
Short Circuit Reactance, X_d'' : _____ Per Unit
Exciting Current: _____ Amps
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

Transformer Data (If Applicable, for Generating Facility-Owned Transformer):

Transformer Size: _____ kVA
Is the transformer: _____ single phase _____ three phase?
Transformer Impedance: _____ % on _____ kVA Base
Transformer Positive-Sequence Short Circuit Impedances (pu):
 Z_{ps} = _____, Z_{pt} = _____, Z_{st} = _____
Transformer Zero-Sequence Impedances (pu):
 Z_{pm0} = _____, Z_{sm0} = _____, Z_{mg0} = _____
Transformer Neutral Grounding Reactor/Resistor Impedance (Ohms):
Transformer BIL Rating _____ kV
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 Generating Facility-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): _____

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: _____

General Information:

Is evidence of site control enclosed?

Yes No

Are site electrical One-Line Diagram(s) showing the configuration of all Generating Facility equipment 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).

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes.

Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

Interconnection Customer: _____ Date: _____