



## Generating Facility Interconnection Request Form For Interconnection of Distributed Generation

*New Hampshire projects > 100 kVa & all non-inverter only*

**Instructions:**

1. Review [Eversource NH Guidelines for Generator Interconnection](#) for an overview of the generator interconnection process.
2. Refer to [Information and Technical Requirements, for the Interconnection of DER](#) for an overview of interconnection technical requirements
3. Refer to the [NH Application to Connect website](#) for additional information
4. Email completed form to: [Eversource-NHDER@eversource.com](mailto:Eversource-NHDER@eversource.com)
5. Include your Eversource Project ID # (from your pre-application report) and “Interconnection Request” in the subject line of your email.
6. Be sure to include all attachments listed in the checklist below and label them as shown in the Document Filename column.

Customer has received pre-application report from Eversource?  Yes  No *If no, please submit pre-application request form*

Eversource DER Project ID # (found on completed pre-application report) \_\_\_\_\_

### Checklist

*Please ensure that your Interconnection Request includes the following:*

Generation Type	Document Filename	Requirements Checklist for a Complete Interconnection Request	Included	
			Yes	No
All	Appendix A – Datasheets	Generator(s)/Inverter(s) Datasheet(s) for the correct model(s) #	<input type="checkbox"/>	<input type="checkbox"/>
	Appendix B – Site Control	Site Control Documentation included for the proposed facility address, Parcel ID#, etc. (see page 2)	<input type="checkbox"/>	<input type="checkbox"/>
	Appendix C – One-line	Generating Facility Electrical One-line matching the application and showing the following as applicable: facility name, address, size, POI, NH PE stamp, generators, inverters, GSU, Effective Grounding Equipment, metering equipment, protection equipment, and ISO-NE Inverter SRD settings compliance.	<input type="checkbox"/>	<input type="checkbox"/>
	Appendix D – Site Plan	Generating Facility Site Plan matching the application/one-line and showing the following as applicable: Facility name, address, size, equipment orientation, Eversource access to owned equipment, property lines, POI, and PCC	<input type="checkbox"/>	<input type="checkbox"/>
	Appendix E – PSCAD Model	Facilities greater than 1 MW - A PSCAD model specific to the inverter manufacturer/model (refer to ISO NE PP5-6, Appendix C, found at: <a href="https://www.iso-ne.com/participate/rules-procedures/planning-procedures">https://www.iso-ne.com/participate/rules-procedures/planning-procedures</a> ).	<input type="checkbox"/>	<input type="checkbox"/>
Inverter Based	Appendix F – Islanding Info	Islanding Detection Information Document for the correct model(s) #	<input type="checkbox"/>	<input type="checkbox"/>
	Appendix G – TOV Letter	TOV Letter (see section 2.3.1 of Information and Technical Requirement for the interconnection of DER)	<input type="checkbox"/>	<input type="checkbox"/>
	Appendix H – UL1741 Info	UL1741 Certification/Testing Document	<input type="checkbox"/>	<input type="checkbox"/>
Induction & Synchronous	Appendix I – Schematics	AC/DC Schematics	<input type="checkbox"/>	<input type="checkbox"/>
	Appendix J	Documentation of the Independent Review of Existing Generation Site (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>

**Interconnection Customer:**

Company Name: \_\_\_\_\_  
*If customer has an existing Eversource account, this name must match the name on the account*  
Contact Person: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone (office): \_\_\_\_\_ Telephone (mobile): \_\_\_\_\_  
E-Mail Address: \_\_\_\_\_

**For applicants with existing Eversource accounts:**

Eversource Account # \_\_\_\_\_ Meter # \_\_\_\_\_  
Energy Service Provider (if other than Eversource) \_\_\_\_\_

**Proposed Location of Generating Facility:**

Street Address (if available): \_\_\_\_\_  
Requested Point of Interconnection: \_\_\_\_\_  
*provide GPS coordinates and satellite map image with proposed POI indicated*

Is requested POI different than referenced in pre-application report?  Yes  No

Generating Facility's Requested In-Service Date: \_\_\_\_\_

Is evidence of site control enclosed (see checklist on page 1)?  Yes  No

Enclose copy of municipal tax maps indicating the parcel(s) on which the proposed facility shall be located.

Municipality \_\_\_\_\_ Map # \_\_\_\_\_ Parcel ID # \_\_\_\_\_

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

**Alternative Contact Information:**

Company Name: \_\_\_\_\_  
*(i.e. Solar Developer if different from the Interconnecting Customer)*  
Contact Person: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone (office): \_\_\_\_\_ Telephone (mobile): \_\_\_\_\_  
E-Mail Address: \_\_\_\_\_

**This interconnection request is for (check all that apply):**

- A New Generating Facility
- Capacity addition to or material modification of an existing generating facility. *If checked, please describe:*

- 
- Generating facility that will participate in the wholesale electricity market
  - Qualifying Facility where 100% of the output will be sold to PSNH?
  - Qualifying Facility intending to sell power at wholesale to an entity other than PSNH? *(evidence of FERC QF Certification will be required prior to commercial operation)*

Does the new Generating Facility plan to participate in the wholesale markets?  Yes  No

For a retail customer generating Facility that will produce electric energy to be consumed only on the retail customer's site. Check the mode of operation below: *(check all that apply)*

- Peak Shaving
- Demand Management
- Primary Power/Base Load
- Stand By/Emergency/Back-up
- Combined Heat and Power or Cogeneration
- Net Metering
- Other: \_\_\_\_\_

**Please refer to CHAPTER Puc 900 NET METERING FOR CUSTOMER-OWNED RENEWABLE ENERGY GENERATION RESOURCES to answer the following:**

If Net Metering, does the Generating Facility meet the requirements for eligibility as defined in Puc 902.04 for a "Combined Heat and Power System"  Yes  No

If Net Metering, does the Generating Facility meet the requirements for eligibility as defined in Puc 902.05 for a "Customer-Generator"  Yes  No

Puc 902.04 "Combined heat and power system" means a "combined heat and power system" as defined in RSA 362-A:1-a, I-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 usable thermal and electrical output in BTUs divided by fuel input in BTUs."

Puc 902.05 "Customer-generator" means "eligible customer-generator" as defined in RSA 362-A:1-a, II-b, namely "an electric utility customer who owns, operates, or purchases power from 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 up to and including 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 to offset the customer's own electricity requirements. Incremental generation added to an existing generation facility, that does not itself qualify for net metering, shall qualify if such incremental generation meets the qualifications of this paragraph and is metered separately from the non-qualifying facility."

Interconnecting Customer Signature \_\_\_\_\_ Date \_\_\_\_\_

**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) \_\_\_\_\_

**Generating Facility Information:**

Energy Source:  Solar  Wind  Hydro  Battery  Diesel  
 Natural Gas  Fuel Oil  Other: \_\_\_\_\_

Prime Mover:  PV  Fuel Cell  Reciprocating Engine  Gas Turbine  
 Steam Turbine  Micro-turbine  Other \_\_\_\_\_

Type of Generator:  Synchronous  Induction  Inverter

Generator Manufacturer: \_\_\_\_\_

Generator Model Name & Number: \_\_\_\_\_ Quantity: \_\_\_\_\_

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  None

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 Rated Power Factor: Leading \_\_\_\_\_ Lagging \_\_\_\_\_

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

Inverter Manufacturer: \_\_\_\_\_

Model Name, Number & Quantity: \_\_\_\_\_

Is the Inverter UL 1741 certified?  Yes  No *Attach certification document indicating UL 1741 and IEEE 1547 versions.*

Is the Inverter IEEE 1547 listed?  Yes  No

Is the Inverter IEEE 1547.1 listed?  Yes  No

Inverter complies with ISO-NE Inverter Source Requirements Document?  Yes  No

Islanding Detection Information Document attached?  Yes  No

Transient Overvoltage Compliance Documentation Attached?  Yes  No

*(See Eversource DER Information and Technical Requirements Section 2.3.1)*

Max design fault contribution current: Instantaneous \_\_\_\_\_ 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 Impedance (If Applicable): \_\_\_\_\_

**Synchronous Generators:**

Direct Axis Synchronous Reactance, Xd: \_\_\_\_\_ Per Unit

Direct Axis Transient Reactance, X d': \_\_\_\_\_ Per Unit

Direct Axis Sub Transient Reactance, X d'': \_\_\_\_\_ Per Unit

Negative Sequence Reactance, X2: \_\_\_\_\_ Per Unit

Zero Sequence Reactance, X0: \_\_\_\_\_ Per Unit

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

**Induction Generators:**

Motoring Power: \_\_\_\_\_ kW I22t or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance, Rr: \_\_\_\_\_ Per Unit Stator Resistance, Rs: \_\_\_\_\_ Per Unit

Stator Reactance, Xs: \_\_\_\_\_ Per Unit Rotor Reactance, Xr: \_\_\_\_\_ Per Unit

Magnetizing Reactance, Xm: \_\_\_\_\_ Per Unit Short Circuit Reactance, Xd'': \_\_\_\_\_ Per Unit

Exciting Current: \_\_\_\_\_ Amps Temperature Rise: \_\_\_\_\_

Frame Size: \_\_\_\_\_ Design Letter: \_\_\_\_\_

Reactive Power Required (No Load): \_\_\_\_\_ VAR Reactive Power Required (Full Load): \_\_\_\_\_ VAR

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 Impedance X/R Ratio: \_\_\_\_\_

Transformer Positive-Sequence Short Circuit Impedances (pu): \_\_\_\_\_

Zps= \_\_\_\_\_, Zpt= \_\_\_\_\_, Zst= \_\_\_\_\_

Transformer Zero-Sequence Impedances (pu): \_\_\_\_\_

Zpm0= \_\_\_\_\_, Zsm0= \_\_\_\_\_, Zmg0= \_\_\_\_\_

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: \_\_\_\_\_

**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: \_\_\_\_\_