



Interconnection Request for A Small Generating Facility

The undersigned Interconnection Customer submits this request to interconnect its Small Generating Facility in the New England Control Area. **The customer’s proposed activities for the Generating Facility and the Point of Interconnection shall determine whether the procedures in Schedule 23 of the ISO New England Inc. Open Access Transmission Tariff or State-jurisdictional procedures will apply to the proposed interconnection.**

This request form should be used for: (i) proposed generating facilities with Generating Facility Capacity of 20 MW or less; (ii) proposed Material Modifications to existing generating facilities with Generating Facility Capacity of 20 MW or less; and (iii) proposed increases in capacity of existing generating facilities where the proposed total Generating Facility Capacity will be less than or equal to 20 MW.<sup>1</sup>

The customer should submit its request to interconnect a Small Generating Facility to ISO New England Inc.

---

Transmission Provider:	ISO New England Inc.
Designated Contact Person:	Dave Forrest
Address:	1 Sullivan Road, Holyoke, MA 01040-2841
Telephone Number:	413-540-4584
Fax:	413-540-4203
E-Mail Address:	dforrest@iso-ne.com

Check for 2 MW or less \_\_\_\_\_

Check for larger than 2 MW but no larger than 20 MW \_\_\_\_\_

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP Section 1.5, documentation of site control must be submitted with the Interconnection Request.

**Preamble and Instructions**

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to ISO New England Inc.

**Processing Fee or Deposit**

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to ISO New England Inc. a non-refundable deposit of \$1,000 towards the cost of the scoping meeting and the interconnection studies.

<sup>1</sup> **Generating Facility Capacity** is the maximum gross megawatt electrical output at an ambient temperature of 20 degrees F of the Generating Facility and the aggregate maximum gross megawatt electrical output of the Generating Facility at an ambient temperature of 20 degrees F where it includes multiple energy production devices.



Interconnection Request for A Small Generating Facility

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

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Project Information**

ISO New England Inc. will post the Project Information for Generating Facilities on its web site at:  
[http://www.iso-ne.com/genrtion\\_resrcs/nwgen\\_inter/status/index.html](http://www.iso-ne.com/genrtion_resrcs/nwgen_inter/status/index.html)

Application is for: \_\_\_\_\_New Small Generating Facility  
\_\_\_\_\_Capacity addition to or Material Modification of an Existing Small Generating Facility  
\_\_\_\_\_Commencement of participation in the wholesale markets by an Existing Small  
Generating Facility

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

If the capacity addition increases the maximum gross megawatt electrical output at an ambient temperature of 20 degrees F of the Generating Facility to more than 20 MW, the Interconnection Customer, Schedule 22 shall apply.

Will the Small Generating Facility be used for any of the following?

- Net Metering? Yes \_\_\_ No \_\_\_
- To Supply Power to the Interconnection Customer? Yes \_\_\_No \_\_\_
- To Supply Power to Others? Yes \_\_\_No \_\_\_



**Interconnection Request for A Small Generating Facility**

**Is the Interconnection Request for:**

A retail customer interconnecting a new Small Generating Facility that will produce electric energy to be consumed only on the retail customer's site? Yes\_\_\_\_No\_\_\_\_

A Qualifying Facility where 100% of the output will be sold to its host utility? Yes\_\_\_\_No\_\_\_\_

An Interconnection Customer interconnecting a new Small Generating Facility that plans to participate in the wholesale markets? Yes\_\_\_\_No\_\_\_\_

An existing Small Generating Facility commencing participation in the wholesale markets? Yes\_\_\_\_No\_\_\_\_

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

\_\_\_\_\_ (Local Electric Service Provider) \_\_\_\_\_ (Existing Account Number)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

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 kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW



**Interconnection Request for A Small Generating Facility**

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



**Interconnection Request for A Small Generating Facility**

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

**Induction Generators**

- Motoring Power (kW): \_\_\_\_\_
- I<sup>2</sup>t 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 ISO New England Inc. 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.

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



**Interconnection Request for A Small Generating Facility**

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



Interconnection Request for A Small Generating Facility

**General Information**

Enclose two copies 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. Are two copies of 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) \_\_\_\_\_

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

**Applicant Signature**

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

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

Name (type or print): \_\_\_\_\_

<u><i>ISO New England Inc. Use</i></u>	
Date Interconnection Request Received: _____	Received By: _____
Deposit Deficient	Date Cured: _____
Site Control Documentation Deficient	Date Cured: _____
Project Mapping Deficient	Date Cured: _____
Technical Data Deficient	Date Cured: _____
Date Deemed Valid Interconnection Request: _____	Deemed Valid By: _____