

13. Expedited/Standard Interconnection Application Process

Instructions for Application *(please do not submit this page)*

General Information: If you wish to submit an application to interconnect your generating facility using the Expedited or Standard Process, please fill out all pages of the attached application form (not including this page of instructions). Once complete, please sign, attach the supporting documentation requested and enclose an application fee of \$3/kW (minimum of \$300 and maximum of \$10,000).

Contact Information: You must provide as a minimum the contact information of the legal applicant. If another party is responsible for interfacing with the Department (utility), you may optionally provide their contact information as well.

Generating Facility Information: Please locate a copy of your monthly bill, this will provide the correct Account Number and Meter Number for this application. If the facility is to be installed in a new location, prior to submittal of this application an account for service must be created. One can do so at our Main Office, visit 100 Elm Street, Westfield, MA, 01085, or contact our Customer Service Line #413-572-0100 for more information, or visit our website www.wgeld.org to submit a request for service.

UL 1741 Listed The standard UL 1741, "Inverters, Converters, and Controllers for Use in Independent Power Systems," addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers choose to submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL 1741. This "listing" is then marked on the equipment and supporting documentation.

DEP Air Quality Permit Needed? A generating facility may be considered a point source of emissions of concern by the Massachusetts Department of Environmental Protection (DEP). Therefore, when submitting this application, please indicate whether your generating facility will require an Air Quality Permit. You must answer these questions, however, your specific answers will not affect whether your application is deemed complete. Please contact the DEP to determine whether the generating technology planned for your facility qualifies for a DEP waiver or requires a permit.

Mail all materials to:

Attn: Energy Supply Manager, Westfield Gas and Electric

100 Elm Street, P.O. Box 990

Westfield, MA 01085

Generating Facility Expedited/Standard Interconnection Application and Agreement

Date Prepared: _____

Contact Information: *(Legal Name and address of Interconnecting Customer or Company Name, where applicable)*

Customer or Company Name (print): _____

Contact Person, if Company: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information: *(e.g., system installation contractor or coordinating company, where applicable)*

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor Contact Information: *(where applicable)*

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Office): _____ (Mobile): _____

Facsimile Number: _____ E-Mail Address: _____

License Number: _____

Ownership Information: The Customer must fully own the Facility. Massachusetts General Laws prohibit a third-party from selling energy within the service territory of a municipal light department, such as WG&E. A third-party cannot maintain ownership or lease distributed generation equipment to a Customer of WG&E, instead WG&E's Customer must own the equipment outright. Any sale of energy to a Customer must be between WG&E and the Customer.

Please attach documentation which confirms customer-owned electric generation equipment such as copies of sales receipt and/or loan agreement.

Generating Facility Information

Address of Facility: _____

City: _____ State: _____ Zip Code: _____

Account Number: _____ Meter Number: _____

Type of Generating Unit: (check applicable)	<input type="checkbox"/> Synchronous	<input type="checkbox"/> Inverter	<input type="checkbox"/> Induction
Manufacturer:	Model:		
Nameplate Rating:	(kW)		(kVAr)
	(Volts)		
	<input type="checkbox"/> Single Phase	<input type="checkbox"/> Three Phase	
System Design Capacity:	(kW)		For Solar PV System, DC-STC rating:
	(kVA)		(kW)
Prime Mover: (check applicable)	<input type="checkbox"/> Photovoltaic	<input type="checkbox"/> Reciprocating Engine	<input type="checkbox"/> Steam Turbine
	<input type="checkbox"/> Fuel Cell	<input type="checkbox"/> Gas Turbine	<input type="checkbox"/> Microturbine
	Other (Specify)		
Energy Source: (check applicable)	<input type="checkbox"/> Solar	<input type="checkbox"/> Wind	<input type="checkbox"/> Fuel Oil
	<input type="checkbox"/> Hydro	<input type="checkbox"/> Natural Gas*	<input type="checkbox"/> Diesel
	Other (Specify)		
IEEE 1547.1 (UL 1741) Listed ?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
Need an Air Quality Permit from DEP ?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NOT SURE
If "YES", have you applied for it ?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
Planning to Export Power ?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
A Cogeneration Facility ?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
Anticipated Export Power Purchaser:			
Export Form: (check applicable)	<input type="checkbox"/> Buy All / Sell All		
	<input type="checkbox"/> Purchased Power Agreement		
	Other (Specify)		

****If the energy source is Natural Gas, please contact the WG&E Engineering Department as additional forms and information will be required during the application process.***

Estimated Install Date: _____ Estimated In-Service Date: _____

Agreement Needed By: _____

Interconnecting Customer Signature:

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true:

Signature: _____ (Print Name): _____

Title: _____ Date: _____

Department Acknowledgement of Completed Application: (For Department use only)

The information provided in this application is complete:

Proof that the WG&E customer is the sole owner of the electric generation equipment. Yes ___

Department Signature: _____ (Print Name): _____

Title: _____ Date: _____

Application Number: _____

Generating Facility Technical Detail

Date: _____

Information on components of the generating facility that are currently Listed:

Equipment Type	Manufacturer	Model	National Standard
1. _____	- _____	- _____	- _____
2. _____	- _____	- _____	- _____
3. _____	- _____	- _____	- _____
4. _____	- _____	- _____	- _____
5. _____	- _____	- _____	- _____
6. _____	- _____	- _____	- _____

Total Number of Generating Units in Facility: _____ Generator Unit Power Factor Rating: _____

Max. Adjustable Leading Power Factor: _____ Max. Adjustable Lagging Power Factor: _____

Generator Characteristic Data (for all inverter-based machines)

Max. Design Fault Contribution Current: _____ Instantaneous _____ or RMS: _____

Harmonic Characteristics: _____

Start-up power requirements: _____

Generator Characteristic Data (for all rotating machines)

Rotating Frequency: _____ (rpm) Neutral Grounding Resistor (if applicable): _____

Additional Information for Synchronous Generating Units

Synchronous Reactance, X_d : _____ (PU) Transient Reactance, $X'd$: _____ (PU)

Subtransient Reactance, X''_d : _____ (PU) Neg. Sequence Reactance, X_2 : _____ (PU)

Zero Sequence Reactance, X_0 : _____ (PU) kVA Base: _____

Field Voltage: _____ (Volts) Field Current: _____ (Amps)

Additional Information for Synchronous Generating Units

Rotor Resistance, R_r : _____ Stator Resistance, R_s : _____

Rotor Reactance, X_r : _____ Stator Reactance, X_s : _____

Magnetizing Reactance, X_m : _____ Short Circuit Reactance, X_d'' : _____

Exciting Current: _____ Temperature Rise: _____

Frame Size: _____ Total Rotating Inertia, H : _____

Per Unit on kVA Base: _____

Reactive Power Required In Vars (No Load): _____

Reactive Power Required In Vars (Full Load): _____

Additional Information for Induction Generating Units that are Motor Started

Motoring Power: _____ (kW) Design Letter: _____

Interconnection Equipment Technical Detail

Date: _____

Will a transformer be used between the generator and the point of interconnection? YES ___ NO ___

Will the transformer be provided by Interconnecting Customer? YES ___ NO ___

Transformer Data: (if applicable, for Interconnecting Customer-Owned Transformer)

Nameplate Rating:	Single Phase or	Three Phase	(kVA)
Transformer Impedance:	(%) on a		kVA Base
If Three Phase:			
Transformer Primary:	(Volts)		Delta
	Wye Grounded	Wye	Other
Transformer Secondary:	(Volts)		Delta
	Wye Grounded	Wye	Other

Transformer Fuse Data: (if applicable, for Interconnecting Customer-Owned Fuse)

(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

Manufacturer Speed: _____ Type: _____ Size: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____ Load Rating: _____ (Amps)

Interrupting Rating: _____ (Amps) Trip Speed: _____ (Cycles)

Interconnecting Circuit Breaker: (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. _____	- _____	- _____

If discrete components; Enclose copy of any proposed Time-Overcurrent Coordination Curves:

Mfg.: _____ Type: _____ Style/Catalog No.: _____ Prop. Setting: _____
 Mfg.: _____ Type: _____ Style/Catalog No.: _____ Prop. Setting: _____
 Mfg.: _____ Type: _____ Style/Catalog No.: _____ Prop. Setting: _____
 Mfg.: _____ Type: _____ Style/Catalog No.: _____ Prop. Setting: _____
 Mfg.: _____ Type: _____ Style/Catalog No.: _____ Prop. Setting: _____

Current Transformer Data: (if applicable)

Enclose copy of Manufacturer's Excitation & Ratio Correction Curves.

Mfg.: _____ Type: _____ Accuracy Class: _____ Prop. Ratio Conn.: _____
 Mfg.: _____ Type: _____ Accuracy Class: _____ Prop. Ratio Conn.: _____

Potential Transformer Data: (if applicable)

Mfg.: _____ Type: _____ Accuracy Class: _____ Prop. Ratio Conn.: _____
 Mfg.: _____ Type: _____ Accuracy Class: _____ Prop. Ratio Conn.: _____

General Technical Detail

Date: _____

Enclose 3 copies of site electrical One-Line and Three-Line Diagrams showing the configuration of all generating facility equipment, current and potential circuits, and protection and control schemes, including DC schematics, with a Massachusetts registered professional engineer (PE) stamp.

Enclose 3 copies of any applicable site documentation that indicates the precise physical location of the proposed 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 Application Address)*

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

Enclose copies of applicable schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Enclose a copy of all relay settings for both the inverters and utility grade relay and any other pertinent devices showing all set points, primary and secondary CT ratios, primary and secondary relay voltages, currents and time delay settings where applicable. For digital relays, enclose a copy or attach a file of the relay programmed settings and logic statements.

Please enclose any other information pertinent to this installation.