

Midwest Energy, Inc.
Distributed Generation Interconnection
Expedited & Standard Process Application

Instructions

To submit an application to interconnect a generating facility using the Expedited or Standard Process, please fill out all five pages of the attached application form, sign and attach the supporting documentation requested. (Applicant may recreate the application form, being sure to include all requested information in a similar format.)

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

Prime Mover: Indicate which type of device will be powering the generator from this list: reciprocating engine, microturbine, gas turbine, steam turbine, fuel cell, wind turbine, photovoltaic panel, or other (please specify).

Energy Source: Indicate the energy source to be used by the prime mover from this list: solar, wind, diesel, biodiesel, natural gas, landfill gas, biogas, propane, or other (please specify).

UL1741 Listing: This standard (“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 UL1741. This “listing” is then marked on the equipment and supporting documentation.

Expedited and Standard Process Interconnection Application

Contact Information

Legal name and address of Interconnecting Customer (Applicant)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (if different from Applicant)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Generator Facility Information

Street Address or Physical Location: _____

Midwest Energy Account Number: _____

Type of Generating Unit (Circle One): Synchronous Induction Inverter

Manufacturer: _____ Model: _____

Nameplate Rating: _____ (KW) _____ (kVAR) _____ (Volts)

_____ Single or _____ Three Phase

Prime Mover (Pick one from list on instruction sheet.) _____

Energy Source (Pick one from list on instruction sheet.) _____

UL1741 Listed? Yes _____ No _____

Certified in California or New York? Yes _____ No _____ (Attach documentation.)

Estimated Installation Date: _____ Estimated In-Service Date: _____

Agreement Desired By: _____

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

Interconnecting Customer Signature Title Date

The information provided in this application is complete:

Company Signature: _____ Date: _____

Generating Facility Technical Detail

List components of the facility that are currently certified and/or listed to national standards.

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

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 ____?

Harmonics 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 Induction 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): _____

Reactive Compensation Installed (Vars): _____

Compensation Switched? ____ Yes ____ No Automatically Switched? ____ Yes ____ No

| Output Level | Compensation (kVARs) | Power Factor @ PCC |
|--------------|----------------------|--------------------|
| 0% Output | | |
| 25% Output | | |
| 50% Output | | |
| 100% Output | | |
| Full Output | | |

Additional information for Induction Generating Units that are started by motoring

Motoring Power: _____ (KW) Design Letter: _____

Interconnection Equipment Technical Detail

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: _____ (kVA) Single ____ or Three ____ Phase

Transformer Impedance: _____ (%) on a _____ KVA Base

If Three Phase:

Transformer Primary: _____ (Volts) ____Delta ____ Wye ____ Wye Grounded ____ Other

Transformer Secondary: _____ (Volts) ____Delta ____ Wye ____ Wye Grounded ____ 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: _____ Type: _____ Size: _____ Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____ Load Rating: _____ Interrupting Rating: _____ Trip Speed: _____
(Amps) (Amps) (Cycles)

Interconnection Protective Relays (if applicable):

(If microprocessor-controlled)

List of Functions and Adjustable Set points for the protective equipment or software:

| | Set Point 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:_____

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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 & 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 Technical Detail

Enclose three copies of site electrical One-Line Diagram showing the configuration of all generating facility equipment, current and potential circuits, and protection and control schemes with a registered professional engineer (PE) stamp.

Enclose three 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).

Please enclose any other information pertinent to this installation.