

**Application for Small Generator Facility Interconnection
Tier 2, Tier 3 or Tier 4 Interconnection**

(See ARSD chapter 20:10:36 for the requirements for a Tier 2, Tier 3, or
Tier 4 Interconnection.)

Applicant Contact Information:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____

E-Mail Address: _____

**Address of Customer Facility Where Small Generator Facility will be
Interconnected:**

(if different from above)

Street Address: _____

City: _____ State: _____ Zip Code: _____

System Installer/Consulting Engineer:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____

E-Mail Address: _____

**Electric Service Information for Applicant's Facility Where Generator Will Be
Interconnected:**

Capacity: _____(Amps) Voltage: _____(Volts)

Type of Service: Single Phase Three Phase

If Three-Phase Transformer, Indicate Type: Wye Delta

Requested Procedure Under Which to Evaluate Interconnection Request:

Please indicate below which review procedure applies to the interconnection request.

Tier 2 - Certified interconnection equipment with an aggregate Electric Nameplate Capacity of 2 MW or less. Indicate type of certification below. The application fee amount is _____ (\$50 plus \$1 per KW of rated generation output up to a maximum of \$500).

Lab Tested -- tested to IEEE 1547.1 and other specified standards by a nationally recognized testing laboratory and is appropriately labeled.

Field Tested – an identical small generator facility has been approved by the Public Utility under a Tier 4 study review process within the prior 36 months of the date of this interconnection request.

Tier 3 – A Small Generator Facility connected to the EDS that does not export power. The Electric Nameplate Capacity rating must be 50 KW or smaller if connecting to an area network, or 2 MW or smaller if connecting to a radial distribution feeder. The application fee amount is _____ (\$100 plus \$2 per KW of rated generation output up to a maximum of \$1,000).

Tier 4 – Electric Nameplate Capacity rating is 10 MW or smaller and the Small Generator Facility does not qualify for a Tier 1, Tier 2, or Tier 3 review or has been reviewed but not approved under a Tier 1, Tier 2, or Tier 3 review. Application fee amount is _____ (\$100 plus \$2 per KW of rated generation output up to a maximum of \$1,000).

Field Tested Equipment:

If the field tested equipment box is checked above, please include with the completed application the following information which will be required for review of Tier 2 field tested small generator facilities:

- A copy of the Certificate of Completion, signed by the Public Utility that has approved an identical small generator facility for parallel operation.
- A copy of all documentation submitted to the Public Utility that approved the Small Generator Facility for parallel operation under a Tier 4 study process.
- A written statement by the Applicant indicating that the small generator facility being proposed is identical, except for Minor Equipment Modification, to the one previously approved by the Public Utility for parallel operation.
- If a Tier 2 Application utilizing Field Tested equipment is proposed, the remainder of the application will not be required to be completed.

Small Generator Facility Information:

List interconnection components/system(s) to be used in the Small Generation Facility that is lab certified (required for Lab Tested, Tier 2 Interconnection requests only).

Component/System

NRTL Providing Label & Listing

1. _____
2. _____
3. _____
4. _____
5. _____

Please provide copies of manufacturer brochures or technical specifications.

Energy Production Equipment/Inverter Information:

Synchronous Induction Inverter Other _____

Electric Nameplate Rating: _____ KW _____ kVA

Rated Voltage: _____ Volts

Rated Current: _____ Amps

System Type Tested (Total System): Yes No (attach product literature)

For Synchronous Machines:

Manufacturer: _____

Model No.: _____ Version No.: _____

Submit copies of the Saturation Curve and the Vee Curve.

Salient Non-Salient

Torque: _____ lb-ft Rated RPM: _____

Field Amperes: _____ at rated generator voltage and current and _____ % PF over-excited

Type of Exciter: _____

Output Power of Exciter: _____

Type of Voltage Regulator: _____

Locked Rotor Current: _____ Amps

Synchronous Speed: _____ RPM

Winding Connection: _____

Min. Operating Frequency/Time: _____

Generator Connection: Delta Wye Wye Grounded

Direct-axis Synchronous Reactance: (Xd) _____ ohms

Direct-axis Transient Reactance: (X'd) _____ ohms

Direct-axis Sub-transient Reactance: (X'd) _____ ohms

For Induction Machines:

Manufacturer: _____

Model No.: _____ Version No.: _____

Locked Rotor Current: _____ Amps

Rotor Resistance: (Rr) _____ ohms Exciting Current: _____ Amps

Rotor Reactance: (Xr) _____ ohms Reactive Power Required: _____
Magnetizing Reactance: (Xm) _____ ohms _____ VARs (No Load)
Stator Resistance: (Rs) _____ ohms _____ VARs (Full Load)
Stator Reactance: (Xs) _____ ohms
Short Circuit Reactance: (X'd) _____ ohms
Phase: Single Three-Phase
Frame Size: _____ Design Letter: _____ Temp. Rise: _____ °C.

Reverse Power Relay Information: (This section applies to Tier 3 Review only.)

Manufacturer: _____ Model: _____
Electric Nameplate Capacity rating: (kVA) _____

Additional Information For Inverter Based Facilities:

Inverter Information:

Manufacturer: _____ Model: _____
Type: Forced Commutated Line Commutated
Electric Nameplate Capacity Rated Output: _____ Amps _____ Volts
_____ KW
Efficiency: _____ % Power Factor: _____ %

DC Source / Prime Mover:

Solar Wind Hydro Other _____
Electric Nameplate Capacity Rating: _____ KW Rating: _____ kVA
Rated Voltage: _____ Volts
Open Circuit Voltage (if applicable): _____ Volts
Rated Current: _____ Amps
Short Circuit Current (If applicable): _____ Amps

Other Facility Information:

Is Facility a Qualified Facility? Yes No
If yes, has Applicant completed FERC's "Notice of Self Certification"? Yes No
One Line Diagram attached: Yes No
Plot Plan attached: Yes No
Installation Test Plan attached: Yes No
Estimated Commissioning Date (if known): _____

Applicant Signature:

I hereby certify that all of the information provided in this application request form is correct.

Applicant Signature: _____

Title: _____ Date: _____

An application fee is required before the application can be processed. Please verify that the appropriate fee is included with the application:

Application fee included:

Amount _____

Tier 2, 3, or 4 Interconnection Request Acknowledgement

I hereby acknowledge the receipt of an Interconnection Request and Application Fee.

Approval for a Tier 2, Tier 3, or Tier 4 Small Generator Facility interconnection is contingent upon the Applicant's Small Generator Facility passing the screens and completing the review process set forth in ARSD chapter 20:10:36 and is not granted by the Public Utility's signature on this Application form.

Public Utility Signature: _____ Date: _____

Printed Name: _____ Title: _____

Note: The Public Utility shall retain a copy of this completed and signed form and return the original and any attachments to the Applicant.

Please mail completed application to:
Luke Erichsen
MidAmerican Energy Company
106 E. 2nd Street
Davenport, IA 52801