# LEVEL 2-4
INTERCONNECTION REQUEST APPLICATION FORM  
(For Distributed Generation Facilities 10 MVA or less)

**INSTRUCTIONS:**
1. *Indicates required information.
2. Mail completed form with application fee (see page 2) to Iowa Lakes Electric Cooperative.

## INTERCONNECTION MEMBER-OWNER CONTACT INFORMATION
(Applicant must be owner or lessee of the facility)

<table>
<thead>
<tr>
<th>*Owner / Company (Legal Entity Name)</th>
<th>* Contact Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Mailing Address</td>
<td>* City * State * Zip</td>
</tr>
<tr>
<td>* Phone No. (Daytime)</td>
<td>Phone No. (Evening) Facsimile No. * Email Address</td>
</tr>
</tbody>
</table>

## ALTERNATE CONTACT INFORMATION (If different from Member-owner Contact Information)

<table>
<thead>
<tr>
<th>Owner / Company (Legal Entity Name)</th>
<th>Contact Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing Address</td>
<td>City * State * Zip</td>
</tr>
<tr>
<td>Phone No. (Daytime)</td>
<td>Phone No. (Evening) Facsimile No. Email Address</td>
</tr>
</tbody>
</table>

## FACILITY LOCATION (If different from information above)

<table>
<thead>
<tr>
<th>* Facility Address or Latitude and Longitude</th>
<th>* City</th>
<th>* State</th>
<th>* Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Cooperative serving Facility Site</td>
<td>Account Number of Facility Site (existing member-owners)</td>
<td>Meter No. (existing member-owners)</td>
<td></td>
</tr>
</tbody>
</table>

## EQUIPMENT CONTRACTOR

<table>
<thead>
<tr>
<th>* Company Name</th>
<th>* Contact Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Mailing Address</td>
<td>* City * State * Zip</td>
</tr>
<tr>
<td>* Phone No. (Daytime)</td>
<td>Phone No. (Evening) Facsimile No. * Email Address</td>
</tr>
</tbody>
</table>

## ELECTRICAL CONTRACTOR (If different from Equipment Contractor)

<table>
<thead>
<tr>
<th>*Owner / Company Name</th>
<th>* Contact Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Mailing Address</td>
<td>* City * State * Zip</td>
</tr>
<tr>
<td>* Phone No. (Daytime)</td>
<td>Phone No. (Evening) Facsimile No. * Email Address</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>License No. (If applicable)</th>
<th>Active License? (If applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>

## APPLICANT OWNERSHIP INTEREST (check one)

- [ ] Owner  [ ] Lease  [ ] 3rd Party PPA  [ ] Other (Please Explain) ____________________________

## THIRD PARTY INFORMATION
(Only complete this section if the facility is to be located on the premise of someone other than the applicant)

| Location of Proposed Facility | Name of Customer at said location |
ELECTRIC SERVICE INFORMATION FOR MEMBER-OWNER FACILITY WHERE GENERATOR WILL BE INTERCONNECTED

*Capacity (Service Entrance): ___________ (Amps) Voltage: ___________ (Volts) Type of Service □ Single Phase □ Three-Phase

* If three-phase transformer, indicate type:
  Primary Winding: □ Wye □ Delta  Secondary Winding: □ Wye □ Delta  Transformer Size ___________ Impedance

* INTENT OF GENERATION (check one)
  □ Offset Load (Unit will operate in parallel, but will not export power to Cooperative or G&T) (If this option is selected, neither the Cooperative nor the G&T will purchase any portion of the generation facility output and Attachment 2 is not applicable)
  □ Self-Use and Sales to the G&T (Unit will operate in parallel and may export and sell excess power to Cooperative’s system pursuant to the Cooperative’s tariff and a separate power purchase agreement to be executed by the QF and Com Belt or NIPCO pursuant to Cooperative and Com Belt’s or NIPCO’s Joint PURPA Implementation Plan)
  □ Sell all output to the G&T (Unit will operate in parallel and shall sell all output of the Qualifying Facility to the G&T)
  □ Wholesale Market Transaction (Unit will operate in parallel and participate in MISO, SPP, or other wholesale power markets pursuant to separate requirements and agreements with MISO, SPP, or other transmission providers, and applicable rules of the Federal Energy Regulatory Commission)
  □ Back-up Generation (Units that temporarily operate in parallel with the electric distribution system for more than 100 milliseconds) (Note: Back-up units that do not operate in parallel for more than 100 milliseconds do not need an interconnection agreement.)
  □ Sale of generation output to Member-owner upon whose premise the facility is located and export and sell any excess power to the Cooperative, which sales may require a separate point of interconnection, metering, and power purchase agreement.
  □ Other: (Please Explain):

*GENERATOR AND PRIME MOVER INFORMATION

Energy Source
  □ Wind  □ Solar  □ Process Byproduct  □ Biomass  □ Hydro  □ Oil  □ Natural Gas  □ Coal  □ Other

If Solar:
  Number of Inverters ___________ Number of Panels ___________ Tilt (degrees) ___________ Azimuth (180° is South facing) ___________
  Array Type: □ Fixed □ Single Axis □ Dual Axis

Energy Converter Type
  □ Wind Turbine  □ Photovoltaic Cell  □ Fuel Cell  □ Reciprocating Engine  □ Other

Generator #1 Size: ___________ (kW) ___________ (kVA)  Generator #1 Nameplate Rating (AC): ___________ (kW)  Generator #2 Size: ___________ (kW) ___________ (kVA)  Generator #2 Nameplate Rating (AC): ___________ (kW)  Generator #3 Size: ___________ (kW) ___________ (kVA)  Generator #3 Nameplate Rating (AC): ___________ (kW)  Total Number of Units: ___________ Total Capacity of All Generators: ___________ (kW) ___________ (kVA)

Disconnection Device: Identify type and location of disconnection device:

Is the generation facility a qualifying facility as defined under Public Utilities Regulatory Policy Act (18 CFR Part 292, Subpart B)?
  □ Yes  □ No

* REQUESTED PROCEDURE UNDER WHICH TO EVALUATE INTERCONNECTION REQUEST (check one)

Please indicate below which review procedure applies to the interconnection request. The review procedure used is subject to confirmation by the Cooperative. A installation fee must be paid based upon the Cooperative’s fee schedule.

□ Level 2 - Lab-certified interconnection equipment with an aggregate electric nameplate capacity less than or equal to 150 kVA. Lab-certified is defined in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1).
Level 3 - Distributed generation facility does not export power. Nameplate capacity rating is less than or equal to 50 kVA if connecting to area network or less than 150 kVA if connecting to a radial distribution feeder.

Level 4 - Nameplate capacity rating is less than or equal to 10 MVA and the distributed generation facility does not qualify for a Level 1, Level 2, or Level 3 review, or the distributed generation facility has been reviewed but not approved under a Level 1, Level 2, or Level 3 review.

Note: Descriptions for interconnection review categories do not list all criteria that must be satisfied. For a complete list of criteria, please refer to Section 24.5 of the Cooperative’s tariff.

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### DISTRIBUTED GENERATION FACILITY INFORMATION

Commissioning Test Date: ________________

(If the Commissioning Test Date changes, the interconnection member-owner must inform the Cooperative as soon as it is aware of the changed date. Notice must be at least 15 business days prior to the test date.)

List interconnection components/systems to be used in the distributed generation facility that are lab-certified.

<table>
<thead>
<tr>
<th>Component/System</th>
<th>NRTL Providing Label and Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please provide copies of the manufacturer brochures or technical specifications.

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### *ENERGY PRODUCTION EQUIPMENT/INVERTER INFORMATION*

- **Induction**
- **Inverter**
- **Synchronous**
- **Other**

<table>
<thead>
<tr>
<th>Rating (kW)</th>
<th>Rating (kVA)</th>
<th>*Rated Voltage</th>
<th>*Rated Current</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Volts</td>
<td>Amps</td>
</tr>
</tbody>
</table>

* System Type Tested? (Total System):  [ ] Yes  [ ] No (attach product literature)

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### *FOR SYNCHRONOUS MACHINES*

Note: Contact Cooperative to determine if all the information requested in this section is required for the proposed distributed generation facility.

Manufacturer:

* Model No:  * Version No.

Submit Copies of the Saturation Curve and 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  Minimum Operating Frequency/Time

Generator Connection

<table>
<thead>
<tr>
<th>Delta</th>
<th>Wye</th>
<th>Wye Grounded</th>
</tr>
</thead>
</table>

Direct-axis Synchronous Reactance (Xd) (ohms)  Direct-axis Transient Reactance (X’d) (ohms)  Direct-axis Sub-Transient Reactance (X’d) (ohms)

Negative Sequence Reactance (ohms)  Zero Sequence Reactance (ohms)  Natural Impedance or Grounding Resister (if any) (ohms)

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### *FOR INDUCTION MACHINES*

Note: Contact Cooperative to determine if all the information requested in this section is required for the proposed distributed generation facility.

Manufacturer:  Model No.
* Version No. 

Locked Rotor Current (Amps)

<table>
<thead>
<tr>
<th>Rotor Resistance (Rr) (ohms)</th>
<th>Exciting Current (Amps)</th>
<th>Rotor Resistance (Xr) (ohms)</th>
<th>Reactive Power Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetizing Reactance (Xm) (ohms)</td>
<td>VARS (No Load)</td>
<td>Stator Resistance (Rs) (ohms)</td>
<td>VARS (Full load)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stator Reactance (Xs) (ohms)</th>
<th>Short Circuit Reactance (Xd) (ohms)</th>
<th>Phases</th>
<th>Single Phase</th>
<th>Three-Phase</th>
</tr>
</thead>
</table>

Frame Size | Design Letter | Temp Rise (°C) |

REVERSE POWER RELAY INFORMATION (LEVEL 3 REVIEW ONLY)

Manufacturer: 
Model No. 

Relay Type: 
Reverse Power Setting 
Reverse Power Time Delay (if any)

*FOR INVERTER-BASED MACHINES

Inverter Information

Manufacturer: 
Model No. 

Type 
□ Forced Commutated 
□ Line Commutated 

Rated Output 

Watts 

Volts

Efficiency (%) 

Power Factor (%) 

Inverter UL 1741 Listed 
□ Yes 
□ No

DC Source/Prime Mover

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

One-Line Diagram - A basic drawing of an electric circuit in which one or more conductors are represented by a single line and each electrical device and major component of the installation, from the generator to the point of interconnection, are noted by symbols.

One-Line Diagram attached: 
□ Yes

Plot Plan - A map or sketch showing the distributed generation facility’s location in relation to streets, alleys, or other geographic markers (i.e. section pin, corner pin, buildings, permanent structures, etc.).

Plot Plan attached: 
□ Yes

*MEMBER-OWNER SIGNATURE

I hereby certify that all of the information provided in this Interconnection Request Application Form is true.

Applicant Signature (signature must reflect Contact Name under section Interconnection Applicant Contact Information) 

Date:

Printed Name: 

Title:

An application fee is required before the application can be processed. Please verify that the appropriate fee is included with the application (see Of Installation Fee Schedule):

Amount $
*COOPERATIVE ACKNOWLEDGEMENT

Receipt of the application fee is acknowledged and this interconnection request is complete.

Cooperative Representative’s Signature

Date

Printed Name:

Title:

Note: The Cooperative is a member of Corn Belt Power Cooperative and Northwest Iowa Power Cooperative (G&T) and the Cooperative and each G&T individually are parties to a Joint PURPA Implementation Plan filed with FERC pursuant to which any purchase from a Qualifying Facility is to be made by the respective G&T rather than Cooperative.