

199-45.14(476) Appendix A - Level 1 standard application form and distributed generation interconnection agreement, revised for Resale Power Group of Iowa Members

LEVEL 1:

STANDARD APPLICATION FORM AND INTERCONNECTION AGREEMENT

Interconnection Request Application Form and
Conditional Agreement to Interconnect

(For Lab-Certified Inverter-Based Distributed Generation Facilities 50 kW or kWhs generated must be less than kWhs usage for the highest month of the previous year)

AN APPLICATION FEE OF \$250.00 MUST BE SUBMITTED WITH THE APPLICATION

Interconnection Applicant Contact Information

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone (Daytime): _____ Evening: _____

Facsimile Number: _____ E-Mail Address _____

Alternate Contact Information (if different from Applicant)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone (Daytime): _____ Evening: _____

Facsimile Number: _____ E-Mail Address _____

Equipment Contractor

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone (Daytime): _____ Evening: _____

Facsimile Number: _____ E-Mail Address _____

License number (of applicable) _____

Active License? (if applicable) Yes _____ No _____

Electrical Contractor (if different from Equipment Contractor):

Telephone (Daytime): _____ Evening: _____

Facsimile Number: _____ E-Mail Address _____

License number (of applicable) _____

Active License? (if applicable) Yes _____ No _____

Intent of Generation

- Self-Use and Sales to the Utility (Unit will operate in parallel and may export and sell excess power to the utility pursuant to Iowa Utilities board rule 199 IAC 15.5 and the State Center Code of Ordinances and the State Center Electric Utility Policy)
- Other (Please explain): _____

Distributed Generation Facility ("Facility") Information

Facility Owner: _____

Facility Address: _____

City: _____ State: _____ Zip: _____

Utility serving Facility Site _____

Account Number of Facility site (existing utility customers): _____

Electric Account Holder (name): _____

Inverter Manufacturer: _____ Model: _____

Is the inverter lab-certified as that term is define in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation (199 IAC 45.1)?

Yes _____ No _____

(If yes, attach manufacturer's technical specifications and label information from a nationally recognized testing laboratory.)

Generation Facility Nameplate Rating: _____ (kW) _____ (kVA) _____ (AC Volts)

Energy Source: Wind _____ Solar _____ Biomass _____ Hydro _____ Diesel _____ Natural Gas _____

Fuel Oil _____ Other: _____

Energy Converter Type: Wind Turbine _____ Photovoltaic Cell _____ Fuel Cell _____

Reciprocating Engine _____ Other: _____

Commissioning Test Date:_____

If the Commissioning Test Date changes, the interconnection customer must inform the utility as soon as it is aware of the changed date.)

Insurance Disclosure

Page 2

The attached terms and conditions contain provisions related to liability and indemnification and should be carefully considered by the interconnection customer. The interconnection customer shall carry general liability insurance coverage, such as, but not limited to, homeowner's insurance.

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 showing the distributed generation facility's location in relation to street, alley, or other geographic markers.
- Plot Plan attached: _____ Yes

Customer Signature

I hereby certify that: (1) I have read and understand the terms and conditions, which are attached hereto by reference; (2) I hereby agree to comply with the attached terms and conditions; and (3) to the best of my knowledge, all of the information provided in this application request form is complete and true.

Applicant Signature:_____

Title:_____ Date:_____

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This Application Form and Interconnection Agreement is comprised of: 1) the Level 1 Standard Application Form and Interconnection Agreement; 2) the Attachment of Terms and Conditions for Interconnection; and 3) the Certificate of Completion.

NOTE: If the Certificate of Completion is not completed and returned to the utility within 12 months following the utility's dated conditional agreement to interconnect below, this Application Form and Interconnection Agreement will automatically terminate and be of no further force and effect.

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Conditional Agreement to Interconnect Distributed Generation Facility

Receipt of the application fee is acknowledged and, by its signature below, the utility has determined the interconnection request is complete. Interconnection of the distributed generation facility is conditionally approved contingent upon the attached terms and conditions of the Agreement, the return of the attached Certificate of Completion, duly executed verification of electrical inspection and successful witness test.

Utility signature: _____ Date: _____

Name: _____ Title: _____

ATTACHMENT
Level 1: Standard Interconnection Agreement

Terms and Conditions for Interconnection

- 1) Construction of the Distributed Generation Facility. The interconnection customer may proceed to construct (including operational testing not to exceed 2 hours) the distributed generation facility, once the conditional Agreement to Interconnect a distributed generation facility has been signed by the utility.
- 2) Final Interconnection and Operation. The interconnection customer may operate the distributed generation facility and interconnect with the utility's electric distribution system after all of the following have occurred:
 - a) Electrical Inspection: Upon completing construction, the interconnection customer shall cause the distributed generation facility to be inspected by the local electrical inspection authority, who shall establish that the distributed generation facility meets local code requirements.
 - b) Certificate of Completion: The interconnection customer shall provide the utility with a copy of the Certificate of Completion with all relevant and necessary information fully completed by the interconnection customer, as well as an inspection form from the local electrical inspection authority demonstrating that the distributed generation facility passed inspection. The Customer shall supply the Utility with a certified one-line diagram of the facility and the connection to the Utility distribution system. Certification of the one-line diagram shall be certified by the Customer's contractor or a professional engineer.
 - c) The utility has completed its witness test as per the following:
 - i) The interconnection customer shall provide the utility at least 15 business days notice of the planned commissioning test for the distributed generation facility. Within 10 business days after the commissioning test, the utility may, upon reasonable notice and at a mutually convenient time, conduct a witness test of the distributed generation facility to ensure that all equipment has been appropriately installed and operating as designed and in accordance with the requirements of IEEE 1547.
 - ii) If the utility does not perform the witness test within the 10 business days after the commissioning test or such other time as in mutually agreed to by the Parties, the witness test is deemed waived, unless the utility cannot do so for good cause. In these cases, upon utility request, the interconnection customer shall agree to another date for the test within 10 business days after the original scheduled date.
- 3) IEEE 1547. The distributed generation facility shall be installed, operated and tested in accordance with the requirements of The Institute of Electrical and Electronics Engineers, Inc. (IEEE), 3 Park Avenue, New York, NY 10016-5997, Standard 1547 (2003) "Standard for Interconnecting Distributed Resources with Electric Power Systems," as well as any applicable

federal, state, or local laws, regulations, codes, ordinances, orders, or similar directives of any government or other authority having jurisdiction. The customer will regularly inspect, maintain, and service the facility for safe and reliable operation and maintain a record or log, available for inspection by the utility, showing when the facility is shut down for repairs or maintenance, the maintenance or repair completed, and when the facility is placed back in service. If requested by the utility, the customer shall submit to the utility a maintenance schedule, prior to October 1, of each year, for the following calendar year.

The customer's electric generating equipment shall be designed, operated and maintained in such a manner that it does not adversely affect the utility's voltage wave form. Utility reserves the right to require customer to provide at its expense suitable apparatus for filtering to avoid interference with telephone, radio, television, or other electronic signal reception caused by electrical equipment and apparatus on customer's premises. Failure of customer to provide filtering when requested by the utility shall be grounds for discontinuation of service. Customer shall comply with all applicable law, rules and regulations governing the operation of its facilities. Operation of the Net Metering Facility must not cause any reduction in the quality of service provided to other customers of utility or interfere with the operation of the utility's system. Customer shall take such corrective action as may be necessary in order to eliminate such condition, and shall reimburse the Utility for any costs incurred by the Utility in correcting or eliminating such conditions.

The electrical characteristics of the facility shall conform with standards established by the utility, including, but not limited to, voltage, current, frequency, harmonics, and automatic synchronization.

- 4) Access. The utility must have access to the isolation device or disconnect switch and metering equipment of the distributed generation facility at all times. When practical, the utility shall provide notice to the customer prior to using its right of access.
- a) The facility shall be equipped with automatic disconnection upon loss of electric voltage supplied by the utility.
 - b) The Customer shall furnish and install an over-current device on the facility to automatically disconnect the facility at all currents that exceed the full-load current rating of the facility.
 - c) To provide adequate safety to Utility's employees, Customer shall furnish and install a manual disconnect switch between the facility and the utility's system so the facility may be positively disconnected from utility's system.
 - d) The location of the switch shall be determined and approved by the Utility and shall be housed in an approved enclosure which shall be secured with a padlock or other locking device. Both the operator of the facility and the utility shall have access to the switch at all times.
 - e) A facility that produces a terminal voltage prior to the closure of the interconnection shall be provided with synchronism check devices to prevent closure of the interconnection under conditions other than a reasonable degree of synchronization between the voltages on each side of the interconnection switch.
 - f) The facility shall be subject to disconnection without notice by the Utility in the event that the facility causes unacceptable safety, voltage, or frequency conditions, service interruption or communication interference.
- 5) Metering. *The Utility will install metering equipment at the point of service to the Net Metering Facility capable of measuring and recording energy flows, on a KWH basis, in each direction on an hourly basis, with each directional flow recorded independently.*

- 6) Interconnection Costs. The customer shall reimburse the Utility for costs incurred by the utility for all costs of connection, switching, metering, transmission, distribution, safety provisions and administrative costs directly related to the installation and maintenance of the physical facilities necessary to permit interconnected operations with the facility, to the extent the costs are in excess of the corresponding costs which the utility would have incurred if it had not engaged in interconnected operations, but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection costs do not include any costs included in the calculation of avoided costs. The customer shall be responsible for the costs of installation and maintenance of power factor correction capacitors required to maintain the equivalent of an average power factor of 90% (lagging) or better at the interconnection.

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- 7) Billing and Calculation of Credits to Customer for Deliveries to Utility. The Customer shall be responsible for payment of any applicable customer charge or other applicable charges approved by the State Center Electric Utility that are not calculated on the basis of metered measurement, as set forth in the rate schedules as approved and published by the Utility. For charges collected on the basis of metered registration, the Utility shall, for each monthly billing period, determine the meter registration of the Distributed Generation Facility by comparing the directional energy flow in each direction.

If the meter registration shows the deliveries of energy in kWh from the Distributed Generation Facility to the Utility exceed the deliveries of energy in kWh from the Utility to the Distributed Generation Facility during any monthly meter reading period, the Utility will issue a credit in the form of payment to the Distributed Generation Facility. Each monthly payment shall be equal to the excess deliveries of energy in kWh from the Distributed Generation Facility multiplied by the Utility's avoided costs. Avoided costs are defined as the sum of the wholesale energy cost and/or any generation cost incurred by Utility for the most recent month divided by the sum of the kWh purchased and/or generated by the Utility during the most recent month.

If the meter registration shows the deliveries of energy in kWh from the Utility to the Distributed Generation Facility exceed the deliveries of energy in kWh from the Distributed Generation Facility to the Utility, the Distributed Generation Facility shall pay the Utility for the net amount of energy delivered by the Utility.

- 8) Environmental Attributes. The customer expressly understands and agrees that all Environmental Attributes, including but not limited to, air quality credits, "Green Tags", and renewable energy credits, that are created by the installation, existence and operation of the facility shall belong to the utility. The utility may report or register ownership of the Environmental Attributes with any entity any may utilize the Environmental Attributes (or transfer them) in any manner.
- 9) Disconnection. The utility may disconnect the distributed generation facility upon any of the following conditions, but must reconnect the distributed generation facility once the condition is cured:
- a) For scheduled outages, provided that the distributed generation facility is treated in the same manner as utility's load customers;
 - b) For unscheduled outages or emergency conditions;

- c) If the distributed generation facility does not operate in a manner consistent with this Agreement or the applicable requirements of 199 IAC Chapter 15 or 45;
 - d) Improper installation or failure to pass the witness test;
 - e) If the distributed generation facility is creating a safety, reliability, or power quality problem;
 - f) The interconnection equipment used by the distributed generation facility is delisted by the Nationally Recognized Testing Laboratory that provided the listing at the time the interconnection was approved;
 - g) Unauthorized modification of the interconnection facilities or the distributed generation facility; or
 - h) Unauthorized connection to the utility's electric system.
- 10) Indemnification. The interconnection customer shall indemnify and defend the utility and the utility's directors, officers, employees, and agents from all claims, damages and expenses; including reasonable attorney's fees, to the extent resulting from the interconnection customer's negligent installation, operation, modification, maintenance, or removal of its distributed generation facility or interconnection facilities, or the interconnection customer's willful misconduct or breach of this Agreement. The utility shall indemnify and defend the interconnection customer and the interconnection customer's directors, officers, employees, and agents from all claims, damages, and expenses, including reasonable attorney's fees, to the extent resulting from the utility's negligent installation, operation, modification, maintenance, or removal of its interconnection facilities or electric distribution system, or the utility's willful misconduct or breach of the Agreement.
- 11) Insurance. The interconnection customer shall provide the utility with proof that it has a current homeowner's insurance policy or other general liability policy. The customer shall maintain in full force and effect, general liability insurance for personal injury and property damage of \$200,000 per occurrence for facilities up to and including 10 kW rated capacity and an additional \$100,000 for each 10 kW of rated capacity, or increment thereof, above 10 kW. In the event that the customer fails to maintain the insurance coverage required by this Agreement, the utility has the right to immediately terminate this Agreement, immediately terminate the facility interconnection and require the Customer to permanently disconnect the facility from the distribution system. The utility shall be named as an additional insured under the required policies of insurance. The customer shall provide a Certificate of Insurance documenting the required coverage as set forth to the utility and the certificate shall become a part of the Agreement. Automatic notification to the utility must be established for both annual renewals and, if appropriate, any termination of such insurance.
- 12) Limitation of Liability. Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, provided that in no event shall death, bodily injury or third-party claims be construed as indirect or consequential damages.
- 13) Termination. This Agreement will remain in effect until terminated and may be terminated under the following conditions:
- a) By interconnection customer - The interconnection customer may terminate this interconnection agreement by providing written notice to the utility. If the interconnection

customer ceases operation of the distributed generation facility, the interconnection customer must notify the utility.

- b) By the utility - The utility may terminate this Agreement without liability to the interconnection customer if the interconnection customer fails to remedy a violation of terms of this Agreement within 30 calendar days after notice, or such other date as may be mutually agreed to in writing prior to the expiration of the 30 calendar day remedy period. The termination date may be no less than 30 calendar days after the interconnection customer receives notice of its violation from the utility.

- 14) Modification of Distributed Generation Facility. The interconnection customer must receive written authorization from the utility before making any changes to the distributed generation facility that could affect the utility's distribution system. If the interconnection customer makes such modifications without the utility's prior written authorization, the utility shall have the right to disconnect the distributed generation facility.
- 15) Permanent Disconnection. In the event the Agreement is terminated, the utility shall have the right to disconnect its facilities or direct the interconnection customer to disconnect its distributed generation facility.
- 16) Disputes. Each Party agrees to attempt to resolve all disputes regarding the provisions of this Agreement. Disputes that cannot be resolved between the two Parties ~~pursuant to the dispute resolution provisions found in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.12)~~ *will be resolved pursuant to the provisions of the Utility's Electric Service Rules.*
- 17) Governing Law, Regulatory Authority and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of Iowa. Nothing in this Agreement is intended to affect any other agreement between the utility and the interconnection customer.
- 18) Survival Rights. This agreement shall remain in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.
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10) Assignment/Transfer of Ownership of the Distributed Generation Facility. This agreement shall terminate upon the transfer of ownership of the distributed generation facility to a new owner unless the transferring owner assigns the Agreement to the new owner, the new owner agrees in writing to the terms of this Agreement, and the transferring owner so notifies the utility in writing prior to the transfer of ownership.
- 19) Definitions. Any term used herein and not define shall have the same meaning as the defined terms used in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1).
- 20) Notice. The Parties may mutually agree to provide notices, demands, comments, or requests by electronic means such as e-mail. Absent agreement to electronic communication, or unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement shall be deemed properly given when receipt is confirmed after notices are delivered in person, delivered by recognized national courier service,

or sent by first-class mail, postage prepaid, return receipt requested, to the person specified below:

If Notice is to Interconnection Customer:

Use the contact information provided in the interconnection customer's application. The interconnection customer is responsible for notifying the utility of any change in the contact party information, including change of ownership.

If Notice is to Utility:

Use the contact information provided below. The utility is responsible for notifying the interconnection customer of any change in the contact party information.

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone (Daytime): _____ Evening: _____

Facsimile Number: _____ E-Mail Address _____

- 21) Interruptions. The utility is not responsible for any lost opportunity or other costs incurred by the interconnection customer as a result of an interruption of service.

Please mail completed application to:

Name: _____

Address: _____

Phone: _____

E-Mail: _____

199-45.15(476) Appendix B - Standard certificate of completion.

Page 8

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone (Daytime): _____ Evening: _____

Facsimile Number: _____ E-Mail Address _____

Installer:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____
Telephone (Daytime): _____ Evening: _____
Facsimile Number: _____ E-Mail Address _____

Final Electric Inspection and Interconnection Customer Signature

The distributed generation facility is complete and has been approved by the local electric inspector having jurisdiction. A signed copy of the electric inspector's form indicating final approval is attached. The interconnection customer acknowledges that it shall not operate the distributed generation facility until receipt of the final acceptance and approval by the utility as provided below.

Signed: _____ Date: _____

(Signature of interconnection customer)

Printed Name: _____

Check if copy of signed electric inspection form is attached: _____

Check if copy of as-built documents is attached (projects larger than 10 kVA only): _____

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Acceptance and Final approval for Interconnection (for utility use only)

The interconnection agreement is approved and the distributed generation facility is approved for interconnected operation upon the signing and return of this Certificate of Completion by utility:

Electric Distribution Company waives Witness Test? (Initial) Yes(____) No (____)

If not waived, date of successful Witness Test: _____ Passed: (Initial) (____)

Utility Signature: _____ Date: _____

Printed Name _____ Title: _____

Should we anticipate a need for the additional levels above 10 kW?

Should we offer the customer capacity credits for solar installations and if so we should establish a minimum qualifying size.

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