

To Linn County REC member,

Thank you for your interest in Linn County REC's interconnection standards. By following the attached guidelines your interconnected alternative energy source should prove to be safe and reliable for all parties involved.

This document may answer some questions you may have that are not covered by the attached interconnect documents. Please feel free to contact Linn County REC at any time if you have questions or concerns. This document also serves as an addition to any Terms and Conditions within this packet.

### **Who makes the rules for interconnection?**

Linn County REC's interconnect rules closely follow the Iowa Utilities Board rule RMU-2009- 0008 passed in May 2010. The attached forms are a result of the regulation and were designed by the Iowa Utilities Board to be nearly the same for any rate regulated utility in the state of Iowa. Linn County REC is not rate regulated but does closely follow the Iowa Utilities Board rules for interconnection.

There are several levels of rules that apply to renewable energy interconnections;

1. FERC – Federal Energy Regulatory Commission
2. State of Iowa rule 199 IAC 45
3. City and county specific rules
4. Linn County REC requirements and specifications

It is the installer's responsibility to ensure all the rules for installation are followed.

### **Budget billing and sample bills**

If you were previously on budget billing, the option for budget billing may be removed due to the uncertainty of your electric bills. This means that you may have a balance on your bill (past amount due) to pay to avoid past-due notices and possible disconnection. Past-due balances may have an impact on your return on investment.

For sample AEP bills, visit [www.linncountyrec.com/energy-solutions/renewable-energy](http://www.linncountyrec.com/energy-solutions/renewable-energy).

### **Disconnection for non-payment**

If the members bill is not paid by the last day of the month, a notice will be printed on the next month's bill sent to the member-consumer providing notification that the bill is delinquent, late payment charges will apply, and disconnection/collection procedures will be instituted.

### **Does Linn County REC net meter?**

Yes. The standard installation involves installing a single meter that measures kWh purchased from Linn County REC and kWh sold to Linn County REC. The netting takes place in the Linn County REC billing system on a monthly basis.

### **How much does Linn County REC pay for energy sold to the utility?**

Linn County REC pays avoided energy cost for purchased energy above the netted amount. Please see our website to get our current [Avoided Cost Tariff](#).

The avoided cost is adjusted periodically, and this will be reflected in the amount Linn County REC pays for energy on your net metered amount.

Linn County REC's avoided cost has a demand component built into the avoided cost rate. As a result, you will not see a separate line item for demand offset on your net metering bill.

**Does Linn County REC "bank" excess kWh?**

No, Linn County REC does not allow for banking between time-of-day blocks as we currently do not have battery storage and the cost of electricity is not the same all day. However, Linn County REC does bank dollars. You have a choice of carrying over money left after the net on your account for use on a future bill or receiving a check from Linn County REC.

If not specified any dollars left after the net, taxes, etc are applied will be left on the account for use on future bills.

**What rates are eligible for net metering?**

For interconnection any of Linn County REC's standard rate codes are available for net metering. Please note that you must meet eligibility requirements for the rate. These would include rate codes 3, 4, 5, 11, 12, and 13 as listed in our tariff. Our rates can be found under our current tariff on our website at [www.linncountyrec.com](http://www.linncountyrec.com).

Please be aware rates and rate structures are subject to change. If you are calculating financial options, it is likely that the rates and rate structures currently in place will change during the time frame of your payback analysis. Alternative energy members are not locked into any rate and are subject to rate changes in the future.

**Are there any rates in the Linn County REC tariff not eligible for alternative energy interconnection?**

If you are currently utilizing an optional rate code such as rate 17DFM, 19DFM, 38DFM (Heat Plus), rate 14 (Large Power Time of Day), and rate 16 (Interruptible) you will not be eligible to continue with these rates due to the way the rates are metered. It will be necessary to move you to one of Linn County REC's standard rates such as rate 3, 4, 5, 11, 12, or 13. Our rates can be found under our current tariff on our website at [www.linncountyrec.com](http://www.linncountyrec.com).

**Are there tax implications associated with Linn County REC purchasing power from my interconnected energy source?**

Linn County REC cannot advise you on tax implications of selling energy. You will need to consult a tax professional for guidance on the tax implications of selling energy. If Linn County REC purchases excess energy from your interconnected alternative energy source in excess of \$600 in any calendar year Linn County REC is required by law to send you an IRS form 1099 at the end of the calendar year.

**What happens if I interconnect without telling Linn County REC?**

Two things will happen. First you will not receive credit for electricity put back on the grid. While the meters show kWh sold to Linn County REC these readings are not recorded by the Linn County REC billing system. Second, when discovered your electric service will be disconnected until the situation has been corrected and the proper paperwork and inspections have been completed.

**What equipment does Linn County REC recommend for installation?**

Linn County REC does not recommend equipment from any particular manufacturer. It is an individual's choice as to what equipment you install. It is your responsibility to ensure the equipment and installation meet the criteria in the attached documents.

**Does Linn County REC keep a list of recommended installers in the area?**

Linn County REC does not keep a list of installers or recommend installers. The choice of installers is based on many criteria and must be evaluated by the individual looking to invest in an alternative energy source.

**How about low interest loans and/or grants?**

Linn County REC does not offer loans or grants of any kind and has no contact or affiliation with any private, local, state, or federal governmental entities offering grant or loan programs.

**Does Linn County REC offer incentives for purchasing or installing an alternative energy source?**

Linn County REC does not offer any incentives for the purchase or installation of an alternative energy source other than net metering.

**Do I need to meter the output of my alternative energy source?**

Linn County REC does not require a meter at this time but in order to know your consumption you would need to have a way of metering the source. In most cases your inverter will have a way of tracking your production. Linn County REC knows how much electricity you have received from us and how much electricity was sold back to Linn County REC.

**Disconnect Device/Isolation Device**

The purpose of the disconnect device/isolation device is to allow Linn County REC crews and emergency workers a means to positively isolate a possible source of electricity that could energize a line and cause injury to a Linn County REC employee, emergency worker, or the public.

As of July 1, 2015 Iowa Law (HF548) requires a disconnect device meeting the following criteria.

A disconnect device with an electrical interrupt rating equal to the rated full load amperage of the installed alternative energy source being disconnected by the device. Disconnect devices that are an integral part of the inverter may or may not be acceptable depending on the location of the inverter and type of disconnect device on the inverter.

If breakers are used as disconnect devices the breakers must be a draw out type. Draw out breakers are defined as a switching device capable of making, carrying, and breaking currents under normal and abnormal circuit conditions such as those of a short circuit. A draw out type circuit breaker can be physically removed from its enclosure creating a visible break in the circuit. The draw out type breaker shall be capable of being locked in the open, drawn-out position.

On a home or business, the disconnect device must be easily visible, installed within 10 feet of the electric meter location and within the line of site of the electric meter. The disconnect must be located at a height between 30 inches to 72 inches above final grade.

For large areas with multiple buildings that require electric service the disconnect device can be located up to 30 feet away from the meter and within the line of sight of the meter at a height of 30 inches to 72 inches.

The disconnect device shall be labelled with a permanently attached sign with clearly visible letters that give procedures/directions for disconnecting the distributed generation facility.

The disconnect device must be accessible to Linn County REC personnel and emergency service personnel 24 hours per day 365 days per year without intervention of the alternative energy owner or use of special keys, combinations, or codes. The disconnect device cannot be inside a house, garage, building, shed, breezeway, porch, deck, inside a locked area or locked fence, or be inaccessible due to terrain, buildings, obstacles, or animals.

The manually operated disconnect device must be installed on the AC side of the inverter between the inverter and the connection to the building electrical panel and provide a visible open, air break, between the solar installation and the main electrical panel.

Multiple disconnect devices are acceptable so long as each switch is marked, the switches meet all location criteria, and the switches have been approved by the electrical inspector.

Remote mount disconnect devices i.e.) devices located inside a building with a remote operator outside the building are not acceptable.

Disconnect devices controlled by Zigbee, 802.11, or other wireless means are not acceptable.

Disconnect devices that operate a solenoid, charged spring, breaker, or other electrical operator are acceptable when the installed full load rated amperage being disconnected by the device is 400 amps or greater.

### **Batteries/Stored Energy Devices**

If you are installing batteries or other devices that store energy the batteries/stored energy devices must have their own disconnect device or be isolated from the utility by the disconnect device for the entire alternative energy system. All stipulations from the above section "Disconnect Device/Isolation Device" are applicable to the disconnect devices for battery/stored energy devices.

### **Signage**

Local, city, county, and state rules supersede Linn County REC rules so check with your authority having jurisdiction for their rules.

If no rules exist, the following signage rules will apply.

A permanent placard must be placed no more than 10 feet away from the electric meter and clearly visible from the electric meter. The placard must clearly identify the presence and location of the disconnection device for the distributed generation facilities on the property.

The placard must be made of a material that will be suitable for the environment and designed to last for the duration of the anticipated operating life of the distributed generation facility.

The disconnect device shall be labeled with a permanently attached sign with clearly visible letters that give the procedures/directions for disconnecting the distributed generation facility.

### **Inspections**

Inspection by the authority having jurisdiction is required for all alternate energy installations. Proof of inspection needs to be sent to Linn County REC as part of the final documentation required by the interconnect packet.

It is up to the solar owner to ensure Linn County REC gets written documentation that the inspection has been completed by the electrical inspector for your area.

If you have an agricultural exemption from the county for the installation of an alternative energy source a copy of the agricultural exemption must be supplied to Linn County REC and you will need to sign a release before Linn County REC will give final authorization for operation. The agricultural exemption must clearly state that the alternative energy source (solar panels, wind generator, methane digester, etc) are included in the agricultural exemption or the exemption will not be honored by Linn County REC for the alternative energy installation. The agricultural exemption must be dated within 6 months prior to the packet submittal.

Fees for electrical inspection by the city, county, or state will be paid by the member installing the alternative energy system.

### **Line changes/Upgrades/Transformer Changes**

Iowa is a first come first serve state. That means the member whose interconnection causes the changes to be needed on the Linn County REC system pays for the upgrade even if there are others with alternative energy sources already installed that may have contributed to the need for a change to the Linn County REC system.

Linn County REC uses the information in the interconnection packet to perform an engineering study in accordance with 199 IAC 45 and IEEE 1547. If of the interconnect request requires changes to the Linn County REC distribution system the member will be billed for the changes necessary if they wish to continue with the interconnection.

Please note lead times for equipment that may be necessary for changes to the Linn County REC system can be 12 months or longer.

If a line build or line upgrade is required, it could take 18 months or longer to complete the build or upgrade.

The interconnect will not be allowed to connect to the Linn County REC system until the necessary changes have been made to the Linn County REC system.

### **Notifications**

Under Iowa Law (HF548) as of July 1, 2015 the owner/operator of the distributed energy facility is required to notify their local or paid volunteer fire departments via US mail of the location of the distributed generation facilities and associated disconnection devices upon completion of installation.

The owner is required to provide any information related to the DG facility as required by that fire department.

The notification is to include but not be limited to:

- Site map showing property address, service point from utility company, distributed generation disconnect locations(s), if applicable location of rapid shut down and battery disconnects.
- Property owners emergency contact information or owners representative's emergency contact information
- Linn County REC's emergency phone number (319-377-1587)
- Size of system
- Information to access the disconnection device
- Statement from the owner verifying the distributed generation system was installed in accordance with the current state adopted National Electric Code
- Any other information requested by the local fire department

### **3<sup>rd</sup> Party ownership/leases/PPA**

If you are considering having a third party own your solar installation or are considering having a PPA (Purchase Power Agreement) with a third-party solar owner installing solar panels on your property this is allowed by Iowa law.

Linn County REC will net meter 3<sup>rd</sup> party owned solar installation in accordance with our current tariff.

Linn County REC rules for interconnection do not change if there is a third party involved. All paperwork is required to be completed and signed by the Linn County REC member not the third-party solar owner. It is the Linn County REC member's responsibility to ensure the solar equipment is installed and operated within the guidelines set forth by the Iowa Utilities Board, National Electric Code, state requirements, county requirements, and Linn County REC requirements.

Any net metering payback will be paid to the Linn County REC member whose name is on the account at Linn County REC.

If the third-party solar owner requires payment of any form that is between the Linn County REC member and the third party owner of the solar. Linn County REC will not be involved.

### **Packet expiration**

Interconnect packets are approved for 12 months following the date the packet interconnect was approved by Linn County REC.

If the packet expires you will need to submit a new packet, pay the review fee, and start the process again no matter where you are in the installation process when the packet expires.

There is no guarantee the packet will be approved a second time.

### **What if I want to add to an existing solar installation**

Iowa code 199 IAC 45 was updated in July of 2016 to address additions to existing systems installed prior to July 1, 2015.

1. Fill out the appropriate level of packet for the additional panels and equipment that will be added. 20 kVA additional or less will be a level 1 interconnect. All others will be a level 2 interconnect. Make sure to include all the supporting documentation requested in the packet.
2. Email the packet to Linn County REC for approval before ordering any equipment
3. Send Linn County REC the appropriate fee for processing the packet. \$125 for level 1 and the calculated amount for level 2 and above.
4. If your initial distributed generation was installed prior to July 1, 2015 and does not have a disconnect switch a disconnect switch must be added in accordance to the current 199 IAC 45 standards.
5. Once the addition has been reviewed by Linn County REC engineering you will receive an email either approving the addition, denying the addition, or approving with changes and/or upgrades that may be necessary on the Linn County REC system. You must agree to pay for any changes necessary to the Linn County REC system in order to move forward.
6. Install your equipment.
7. Obtain electrical inspection for the addition by the authority having jurisdiction.
8. Fill out the Certificate of Completion and email the Certificate of Completion and a copy of the electrical inspection to [renewables@linncountyrec.com](mailto:renewables@linncountyrec.com)
9. Linn County REC will make a site inspection
10. If everything checks out, you will receive an email indicating the installation has been approved.
11. Site inspection and shutdown test may be required by Linn County REC.

### **Linn County REC forms**

The attached Linn County REC level 1 forms are fillable and designed to be filled out using any available PDF software such as Adobe or Foxit Reader.

If the form is filled out using any of the PDF software and emailed to [renewables@linncountyrec.com](mailto:renewables@linncountyrec.com) the form information is automatically processed and is immediately put into the engineering queue at Linn County REC.

If the form is scanned and emailed or sent via US Mail this adds additional time to get into the engineering queue.

Please keep the forms separate. Do not combine the forms into a single form as our system is looking for separate forms when emailed to [renewables@linncountyrec.com](mailto:renewables@linncountyrec.com).  
Electronic signatures on all forms are accepted and preferred.

### **What are the basic steps for submitting a level 1 application for interconnection?**

Level 1 applications are for 20 kVA and under, inverter based, equipment is certified by an NRTL, and Linn County REC does not need to construct facilities to serve the interconnected generator.

All correspondence will be via email. Please make sure you have the correct email in the interconnect packet you filled out.

- 1) Decide on the equipment you wish to interconnect and how the interconnection will be made.
- 2) Fill out the level 1 interconnect form and email the form along with any supporting

documentation to [renewables@linncountyrec.com](mailto:renewables@linncountyrec.com). The form can be printed and mailed to: Linn County REC 5695 REC Drive PO Box 69 Marion, IA 52302-0069 ATTN: Renewables Processing.

3) Mail the \$125 processing fee to Linn County REC, 5695 RE Drive, Marion, IA 52302-0069, ATTN: Renewables Payments. Please include the address or the meter number of the interconnect facility on or with the check.

4) Linn County REC will verify the generation facility passes all relevant screens for a level 1 interconnect as set forth by the Iowa Utilities Boards rule 199-45.8(2). This can take up to 2 weeks.

5) Once all screens have been checked by engineering and the processing fee has been received you will receive via email either the "Conditional Agreement to Interconnect Distributed Generation Facility" or a denial email.

The "Conditional Agreement to Interconnect Distributed Generation Facility" may contain changes to the Linn County REC system that will need to be completed prior to the final approval of interconnection. Any changes necessary will be paid for by the member requesting the interconnection.

If the interconnection is denied you will receive the notice via email and the interconnection will not be allowed to continue.

6) Install your distributed generation.

7) Once your installation is complete the "Certificate of Completion" document needs to be filled out, signed, and emailed to Linn County REC along with documentation from the electrical inspector that the installation has passed inspection. In addition, if there are changes to the installation provide updates to the paperwork for the changes that were made.

8) When Linn County REC receives the documentation from part 7 above Linn County REC will come onsite and verify the location and type of disconnect switch(s), verify the installed equipment matches the submitted paperwork, and verify NRTL certification on the inverter. Linn County REC may or may not require a witness test. If a witness test is required Linn County REC may shut the electricity off to the premises for a short time to test the equipment disconnects per IEEE 1547 standard.

9) Once step 7 is completed Linn County REC will complete the "Acceptance and Final Approval" document and email it back to you.

10) You are now free to operate your alternative energy source.

***Per Iowa Code, a 2-hour window testing period is allowed for residential properties and 4-hour window testing period for commercial properties. Members/contractors who energize an AEP system prior to the submission of the Appendix B (Certificate of Completion) and the inspection report will immediately have the array's disconnect turned off and locked out. If the disconnect is not able to be safely shut off or is missing, the electric service will be disconnected. A \$100 fee will be added to the members account for the lockout and unlocking of the disconnect. Energizing an AEP system prior to the inspection and Appendix B poses a safety hazard to LCREC linemen and staff and is a violation of Iowa Code 45.3(7) and 45.8(2).***



Interconnects sized above 20 kVA will need to use the Level 2 – 4 Interconnect Packet.

The procedure for submitting a level 2 – 4 interconnect packet is the same as the level 1 but the charges for reviewing the interconnect packet are different, the insurance requirements are different, and the review process can take longer.

Please make sure to include all the supporting documentation when submitting level 2 through 4 interconnect packets.

Linn County REC looks forward to working with you on your project. If you

have questions, please feel free to contact Linn County REC.

Linn County REC

5695 REC Drive PO Box 69

Marion, IA 52302

Ph: 319-377-1587

Email: [renewables@linncountyrec.com](mailto:renewables@linncountyrec.com)

Website: [www.linncountyrec.com](http://www.linncountyrec.com)

**199—45.16(476) Appendix C – Levels 2 to 4: standard application form**

LEVELS 2 TO 4:  
STANDARD INTERCONNECTION REQUEST APPLICATION FORM  
(For Distributed Generation Facilities 20 kVA to 10 MVA)

Interconnection Customer Contact Information

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_ Code: \_\_\_\_\_  
Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from Customer Contact Information)

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_ Code: \_\_\_\_\_  
Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Facility Address (if different from above): \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_ Code: \_\_\_\_\_  
Utility Serving Facility Site: \_\_\_\_\_  
Account Number of Facility Site (existing utility customers): \_\_\_\_\_  
Inverter Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
What is the Annual Production that was Provided to the Member? \_\_\_\_\_  
Was the Annual Production Provided to the Member? Yes \_\_\_\_\_ No \_\_\_\_\_

Equipment Contractor

Company Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_ Code: \_\_\_\_\_  
Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electrical Contractor (if different from Equipment Contractor)

Company Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_ Code: \_\_\_\_\_  
Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_  
License Number: \_\_\_\_\_

Electric Service Information for Customer Facility where Generator will be Interconnected

Capacity: \_\_\_\_\_ (Amps) Voltage: \_\_\_\_\_ (Volts)  
Type of Service: ☐ Single Phase ☐ Three Phase

If 3 Phase Transformer, Indicate Type:  
Primary Winding ☐ Wye ☐ Delta  
Secondary Winding ☐ Wye ☐ Delta

Transformer Size: \_\_\_\_\_ Impedance: \_\_\_\_\_

Intent of Generation

- ☐ Net Metering (Unit will operate in parallel and will export power to Linn County REC pursuant to Iowa Utilities Board rule 199 IAC 15.11(5) and Linn County REC's net metering or net billing tariff) For facilities > 500 kVA
- ☐ Self-Use and Sales to Linn County REC (Unit will operate in parallel and may export and sell excess power to Linn County REC pursuant to Iowa Utilities Board rule 199 IAC 15.5 and Linn County REC's tariff) For facilities > 500 kVA
- ☐ Wholesale Market Transaction (Unit will operate in parallel and participate in MISO or other wholesale power markets pursuant to separate requirements and agreements with MISO or other transmission providers, and applicable rules of the Federal Energy Regulatory Commission) For facilities > 500 kVA

Generator & Prime Mover Information

Energy Source (Hydro, Wind, Solar, Process Byproduct, Biomass, Oil, Natural Gas, Coal, etc.): \_\_\_\_\_

Energy Converter Type (Wind Turbine, Photovoltaic Cell, Fuel Cell, Steam Turbine, etc.): \_\_\_\_\_

Generator Size: \_\_\_\_\_ kW or \_\_\_\_\_ kVA      Number of Units: \_\_\_\_\_

Total Capacity: \_\_\_\_\_ kW or \_\_\_\_\_ kVA

Generator Type (Check one):

\_\_\_ Induction    \_\_\_ Inverter    \_\_\_ Synchronous    \_\_\_ Other: \_\_\_\_\_

\*\*\*For Solar Panels – Tilt: \_\_\_\_\_ Azimuth: \_\_\_\_\_

#### Requested Procedure Under Which to Evaluate Interconnection Request

Please indicate below which review procedure applies to the interconnection request. The review procedure used is subject to confirmation by Linn County REC.

- \_\_\_ Level 2 – Lab-certified interconnection equipment with an aggregate electric nameplate capacity of 20 kW to 500 kW Lab-certified is defined in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1). Minimum application fee due upon receipt of packet is \$250 plus \$1 per kVA. If additional studies are necessary they will be billed on an hourly basis.
- \_\_\_ Level 3 – Distributed generation facility does not export power. Nameplate capacity rating of 500 kW to 2 MVA connecting to area network or less than or equal to 10 MVA if connecting to a radial distribution feeder. Minimum application fee due upon receipt of packet is \$500 plus \$2 per kVA. If additional studies are necessary they will be billed on an hourly basis.
- \_\_\_ Level 4 – Nameplate capacity rating of 500 kW 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. Minimum application fee due upon receipt of packet is \$1000 plus \$2 per kVA. If additional studies are necessary they will be billed on an hourly basis.

Note: Descriptions for interconnection review categories do not list all criteria that must be satisfied. For a complete list of criteria, please refer to Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45).

#### Distributed Generation Facility Information:

Commissioning Test Date: \_\_\_\_\_

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

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: \_\_\_\_\_  
Rating: \_\_\_\_\_ kW Rating: \_\_\_\_\_ kVA  
Rated Voltage: \_\_\_\_\_ Volts  
Rated Current: \_\_\_\_\_ Amps  
System Type Tested (Total System): \_\_\_ Yes \_\_\_ No; attach product literature

For Synchronous Machines:

Note: Contact Linn County REC 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 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 Freq./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

Negative Sequence Reactance: \_\_\_\_\_ ohms  
Zero Sequence Reactance: \_\_\_\_\_ ohms  
Neutral Impedance or Grounding Resister (if any): \_\_\_\_\_ ohms

For Induction Machines:

Note: Contact Linn County REC 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  
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  
Phases: \_\_\_\_\_ Single \_\_\_\_\_ Three-Phase  
Frame Size: \_\_\_\_\_ Design Letter: \_\_\_\_\_ Temp. Rise: \_\_\_\_\_ °C.

Reverse Power Relay Information (Level 3 Review Only):

Manufacturer: \_\_\_\_\_  
Relay Type: \_\_\_\_\_ Model Number: \_\_\_\_\_  
Reverse Power Setting: \_\_\_\_\_  
Reverse Power Time Delay (if any): \_\_\_\_\_

Additional Information For Inverter-Based Facilities:

Inverter Information:

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
Type: \_\_\_\_\_ Forced Commutated \_\_\_\_\_ Line Commutated  
Rated Output: \_\_\_\_\_ Watts \_\_\_\_\_ Volts  
Efficiency: \_\_\_\_\_ % Power Factor: \_\_\_\_\_ %  
Inverter UL1741 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 attached: \_\_\_\_ Yes

Plot Plan – A map showing the distributed generation facility's location in relation to streets, alleys, or other geographic markers.

Plot Plan attached: \_\_\_\_ Yes

Customer Signature:

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

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:

Amount: \_\_\_\_\_

Linn County REC Acknowledgement:

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

Linn County REC Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

**199—45.17(476) Appendix D – Levels 2 to 4: standard distributed generation interconnection agreement**

LEVELS 2 TO 4:

STANDARD INTERCONNECTION AGREEMENT

(For Distributed Generation Facilities with a capacity of 20 kVA to 10 MVA)

This agreement ("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, by and between \_\_\_\_\_ ("interconnection customer"), as an individual person, or as a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, and Linn County REC, a Corporation existing under the laws of the State of Iowa. Interconnection customer and Linn County REC each may be referred to as a "Party," or collectively as the "Parties."

Recitals:

Whereas, interconnection customer is proposing to install or direct the installation of a distributed generation facility, or is proposing a generating capacity addition to an existing distributed generation facility, consistent with the interconnection request application form completed by interconnection customer on \_\_\_\_\_; and

Whereas, the interconnection customer will operate and maintain, or cause the operation and maintenance of, the distributed generation facility; and

Whereas, interconnection customer desires to interconnect the distributed generation facility with Linn County REC's electric distribution system.

Now, therefore, in consideration of the premises and mutual covenants set forth in this Agreement, the Parties covenant and agree as follows:

Article 1.      Scope and Limitations of Agreement

- 1.1      This Agreement shall be used for all approved interconnection requests for distributed generation facilities that fall under Levels 2, 3, and 4 according to the procedures set forth in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45).
- 1.2      This Agreement governs the terms and conditions under which the distributed generation facility will interconnect to, and operate in parallel with, Linn County REC's electric distribution system.
- 1.3      This Agreement does not constitute an agreement to purchase or deliver the interconnection customer's power.
- 1.4      Nothing in this Agreement is intended to affect any other agreement between



Linn County REC and the interconnection customer.

- 1.5 Terms used in this Agreement are defined in Attachment 1 hereto or in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1) unless otherwise noted.

1.6 Responsibilities of the Parties

1.6.1 The Parties shall perform all obligations of this Agreement in accordance with all applicable laws, regulations, codes, ordinances, orders, or similar directives of any government or other authority having jurisdiction.

1.6.2 Linn County REC shall construct, own, operate, and maintain its interconnection facilities in accordance with this Agreement.

1.6.3 The interconnection customer shall construct, own, operate, and maintain its distributed generation facility and interconnection facilities in accordance with this Agreement.

1.6.4 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facilities that it now or subsequently may own unless otherwise specified in the attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair, and condition of its respective lines and appurtenances on its respective sides of the point of interconnection.

1.6.5 The interconnection customer agrees to design, install, maintain, and operate its distributed generation facility so as to minimize the likelihood of causing an adverse system impact on the electric distribution system or any other electric system that is not owned or operated by Linn County REC.

1.7 Parallel Operation Obligations

Once the distributed generation facility has been authorized to commence parallel operation, the interconnection customer shall abide by all operating procedures established in IEEE Standard 1547 and any other applicable laws, statutes or guidelines, including those specified in Attachment 4 of this Agreement.

1.8 Metering

The interconnection customer shall be responsible for the cost to purchase, install, operate, maintain, test, repair, and replace metering and data acquisition equipment specified in Attachments 5 and 6 of this Agreement.

## 1.9 Reactive Power

- 1.9.1 Interconnection customers with a distributed generation facility larger than or equal to 500 kVA shall design their distributed generation facilities to maintain a power factor at the point of interconnection between .95 lagging and .95 leading at all times. Interconnection customers with a distributed generation facility smaller than 500 kVA shall design their distributed generation facility to maintain a power factor at the point of interconnection between .90 lagging and .90 leading at all times.
- 1.9.2 Any Linn County REC requirements for meeting a specific voltage or specific reactive power schedule as a condition for interconnection shall be clearly specified in Attachment 4. Under no circumstance shall Linn County REC's additional requirements for voltage or reactive power schedules be outside of the agreed-upon operating parameters defined in Attachment 4.
- 1.9.3 If the interconnection customer does not operate the distributed generation facility within the power factor range specified in Attachment 4, or does not operate the distributed generation facility in accordance with a voltage or reactive power schedule specified in Attachment 4, the interconnection customer is in default, and the terms of Article 6.5 apply.

## 1.10 Standards of Operations

The interconnection customer must obtain all certifications, permits, licenses, and approvals necessary to construct, operate, and maintain the facility and to perform its obligations under this Agreement. The interconnection customer is responsible for coordinating and synchronizing the distributed generation facility with Linn County REC's system. The interconnection customer is responsible for any damage that is caused by the interconnection customer's failure to coordinate or synchronize the distributed generation facility with the electric distribution system. The interconnection customer agrees to be primarily liable for any damages resulting from the continued operation of the distributed generation facility after Linn County REC ceases to energize the line section to which the distributed generation facility is connected. In Attachment 4, Linn County REC shall specify the shortest reclose time setting for its protection equipment that could affect the distributed generation facility. Linn County REC shall notify the interconnection customer at least 10 business days prior to adopting a faster reclose time on any automatic protective equipment, such as a circuit breaker or line recloser, that might affect the distributed generation facility.

## Article 2.      Inspection, Testing, Authorization, and Right of Access

### 2.1      Equipment Testing and Inspection

The interconnection customer shall test and inspect its distributed generation facility including the interconnection equipment prior to interconnection in accordance with IEEE Standard 1547 (2003) and IEEE Standard 1547.1 (2005). The interconnection customer shall not operate its distributed generation facility in parallel with Linn County REC's electric distribution system without prior written authorization by Linn County REC as provided for in Articles 2.1.1-2.1.3.

2.1.1 Linn County REC shall perform a witness test after construction of the distributed generation facility is completed, but before parallel operation, unless Linn County REC specifically waives the witness test. The interconnection customer shall provide Linn County REC at least 15 business days' notice of the planned commissioning test for the distributed generation facility. If Linn County REC performs a witness test at a time that is not concurrent with the commissioning test, it shall contact the interconnection customer to schedule the witness test at a mutually agreeable time within 10 business days after the scheduled commissioning test designated on the application. If Linn County REC does not perform the witness test within 10 business days after the commissioning test, the witness test is deemed waived unless the Parties mutually agree to extend the date for scheduling the witness test, or unless Linn County REC cannot do so for good cause, in which case, the Parties shall agree to another date for scheduling the test within 10 business days after the original scheduled date. If the witness test is not acceptable to Linn County REC, the interconnection customer has 30 business days to address and resolve any deficiencies. This time period may be extended upon agreement in writing between Linn County REC and the interconnection customer. If the interconnection customer fails to address and resolve the deficiencies to the satisfaction of Linn County REC, the applicable cure provisions of Article 6.5 shall apply. The interconnection customer shall, if requested by Linn County REC, provide a copy of all documentation in its possession regarding testing conducted pursuant to IEEE Standard 1547.1.

2.1.2 If the interconnection customer conducts interim testing of the distributed generation facility prior to the witness test, the interconnection customer shall obtain permission from Linn County REC before each occurrence of operating the distributed generation facility in parallel with the electric distribution system. Linn County REC may, at its own expense, send qualified personnel to the distributed generation facility to observe such interim testing, but it cannot mandate that these tests be considered in the final witness test. Linn County REC is not required to observe the interim

testing or precluded from requiring the tests be repeated at the final witness test.

- 2.1.3 After the distributed generation facility passes the witness test, Linn County REC shall affix an authorized signature to the certificate of completion and return it to the interconnection customer approving the interconnection and authorizing parallel operation. The authorization shall not be conditioned nor delayed.

## 2.2 Commercial Operation

The interconnection customer shall not operate the distributed generation facility, except for interim testing as provided in Article 2.1, until such time as the certificate of completion is signed by all Parties.

## 2.3 Right of Access

Linn County REC must have access to the isolation device or disconnect switch and metering equipment of the distributed generation facility at all times. When practical, Linn County REC shall provide notice to the customer prior to using its right of access.

## Article 3. Effective Date, Term, Termination, and Disconnection

### 3.1 Effective Date

This Agreement shall become effective upon execution by all Parties.

### 3.2 Term of Agreement

This Agreement shall become effective on the effective date and shall remain in effect unless terminated in accordance with Article 3.3 of this Agreement.

### 3.3 Termination

3.3.1 The interconnection customer may terminate this Agreement at any time by giving Linn County REC 30 calendar days' prior written notice.

3.3.2 Either Party may terminate this Agreement after default pursuant to Article 6.5.

3.3.3 Linn County REC may terminate, upon 60 calendar days' prior written notice, for failure of the interconnection customer to complete construction of the distributed generation facility within 12 months after the in-service date as specified by the Parties in Attachment 2, which may be extended

by mutual written agreement between the Parties prior to the expiration of the 12-month period.

3.3.4 Linn County REC may terminate this Agreement, upon 60 calendar days' prior written notice, if the interconnection customer has abandoned, cancelled, permanently disconnected or stopped development, construction, or operation of the distributed generation facility, or if the interconnection customer fails to operate the distributed generation facility in parallel with Linn County REC's electric system for three consecutive years.

3.3.5 Upon termination of this Agreement, the distributed generation facility will be disconnected from Linn County REC's electric distribution system. Terminating this Agreement does not relieve either Party of its liabilities and obligations that are owed or continuing when the Agreement is terminated.

3.3.6 If the Agreement is terminated, the interconnection customer loses its position in the interconnection review order.

### 3.4 Temporary Disconnection

A Party may temporarily disconnect the distributed generation facility from the electric distribution system in the event one or more of the following conditions or events occurs:

3.4.1 Emergency conditions – shall mean any condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that Linn County REC determines is likely to cause an adverse system impact, or is likely to have a material adverse effect on Linn County REC's electric distribution system, interconnection facilities or other facilities, or is likely to interrupt or materially interfere with the provision of electric utility service to other customers; or (3) that is likely to cause a material adverse effect on the distributed generation facility or the interconnection equipment. Under emergency conditions, Linn County REC or the interconnection customer may suspend interconnection service and temporarily disconnect the distributed generation facility from the electric distribution system without giving notice to the other Party, provided that it gives notice as soon as practicable thereafter. Linn County REC must notify the interconnection customer when it becomes aware of any conditions that might affect the interconnection customer's operation of the distributed generation facility. The interconnection customer shall notify Linn County REC when it becomes aware of any condition that might affect Linn County REC's electric distribution system. To the extent information is known, the notification shall describe the condition, the extent of the damage or deficiency, the expected effect on the operation

of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

- 3.4.2 Scheduled maintenance, construction, or repair – Linn County REC may interrupt interconnection service or curtail the output of the distributed generation facility and temporarily disconnect the distributed generation facility from Linn County REC's electric distribution system when necessary for scheduled maintenance, construction, or repairs on Linn County REC's electric distribution system. To the extent possible, Linn County REC shall provide the interconnection customer with notice five business days before an interruption. Linn County REC shall coordinate the reduction or temporary disconnection with the interconnection customer; however, the interconnection customer is responsible for out-of-pocket costs incurred by Linn County REC for deferring or rescheduling maintenance, construction, or repair at the interconnection customer's request.
- 3.4.3 Forced outages – Linn County REC may suspend interconnection service to repair Linn County REC's electric distribution system. Linn County REC shall provide the interconnection customer with prior notice, if possible. If prior notice is not possible, Linn County REC shall, upon written request, provide the interconnection customer with written documentation, after the fact, explaining the circumstances of the disconnection.
- 3.4.4 Adverse system impact – Linn County REC must provide the interconnection customer with written notice of its intention to disconnect the distributed generation facility, if Linn County REC determines that operation of the distributed generation facility creates an adverse system impact. The documentation that supports Linn County REC's decision to disconnect must be provided to the interconnection customer. Linn County REC may disconnect the distributed generation facility if, after receipt of the notice, the interconnection customer fails to remedy the adverse system impact within 12 days, unless emergency conditions exist, in which case, the provisions of Article 3.4.1 apply. Linn County REC may continue to leave the generating facility disconnected until the adverse system impact is corrected to the satisfaction of both Linn County REC and the adversely-impacted customer.
- 3.4.5 Modification of the distributed generation facility – The interconnection customer must receive written authorization from Linn County REC prior to making any change to the distributed generation facility, other than a minor equipment modification. If the interconnection customer modifies its facility without Linn County REC's prior written authorization, Linn County REC has the right to disconnect the distributed generation facility until such time as Linn County REC concludes the modification poses no threat to the safety or reliability of its electric distribution system.

- 3.4.6 Unauthorized connection to Linn County REC's electric distribution system.
- 3.4.7 Failure of the distributed generation facility to operate in accordance with this Agreement or the applicable requirements of 199 IAC Chapters 15 or 45.
- 3.4.8 Linn County REC is not responsible for any lost opportunity or other costs incurred by interconnection customer as a result of an interruption of service under Article 3.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

- 4.1.1 The interconnection customer shall pay for the cost of the interconnection facilities itemized in Attachment 3. Linn County REC shall identify the additional interconnection facilities necessary to interconnect the distributed generation facility with Linn County REC's electric distribution system, the cost of those facilities, and the time required to build and install those facilities, as well as an estimated date of completion of the building or installation of those facilities.
- 4.1.2 The interconnection customer is responsible for its expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its interconnection equipment.

4.2 Distribution Upgrades

Linn County REC shall design, procure, construct, install, and own any distribution upgrades. The actual cost of the distribution upgrades, including overheads, shall be directly assigned to the interconnection customer whose distributed generation facility caused the need for the distribution upgrades.

Article 5. Billing, Payment, Milestones, and Financial Security

- 5.1 Billing and Payment Procedures and Final Accounting (Applies to additional reviews conducted under a Level 2 review and Level 4 reviews)
  - 5.1.1 Linn County REC shall bill the interconnection customer for the design, engineering, construction, and procurement costs of Linn County REC-provided interconnection facilities and distribution upgrades contemplated by this Agreement as set forth in Attachment 3. The billing shall occur on a monthly basis, or as otherwise agreed to between the Parties. The

interconnection customer shall pay each billing invoice within 30 calendar days after receipt, or as otherwise agreed to between the Parties, if a balance due is showing after any customer deposit funds have been expended.

- 5.1.2 Within 90 calendar days after completing the construction and installation of Linn County REC's interconnection facilities and distribution upgrades described in Attachments 2 and 3 to this Agreement, Linn County REC shall provide the interconnection customer with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation of Linn County REC's interconnection facilities and distribution upgrades; and (2) the interconnection customer's previous deposit and aggregate payments to Linn County REC for the interconnection facilities and distribution upgrades. If the interconnection customer's cost responsibility exceeds its previous deposit and aggregate payments, Linn County REC shall invoice the interconnection customer for the amount due and the interconnection customer shall make payment to Linn County REC within 30 calendar days. If the interconnection customer's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, Linn County REC shall refund to the interconnection customer an amount equal to the difference within 30 calendar days after the final accounting report. Upon request from the interconnection customer, if the difference between the budget estimate and the actual cost exceeds 20%, Linn County REC will provide a written explanation for the difference.
- 5.1.3 If a Party disputes any portion of its payment obligation pursuant to this Article 5, the Party shall pay in a timely manner all non-disputed portions of its invoice, and the disputed amount shall be resolved pursuant to the dispute resolution provisions contained in Article 8. A Party disputing a portion of an Article 5 payment shall not be considered to be in default of its obligations under this Article.

## 5.2 Interconnection Customer Deposit

At least 20 business days prior to the commencement of the design, procurement, installation, or construction of Linn County REC's interconnection facilities and distribution upgrades, the interconnection customer shall provide Linn County REC with a deposit equal to 100% of the estimated, nonbinding cost to procure, install, or construct any such facilities. However, when the estimated date of completion of the building or installation of facilities exceeds three months from the date of payment of the deposit, pursuant to Article 4.1.1 of this Agreement, this deposit may be held by Linn County REC and will accrue interest in accordance with 199 IAC 20.4(4), with any interest to inure to the benefit of the interconnection customer.



Article 6.      Assignment, Limitation on Damages, Indemnity, Force Majeure, and Default

6.1      Assignment

This Agreement may be assigned by either Party with the prior consent of the other Party. If the interconnection customer attempts to assign this Agreement, the assignee must agree to the terms of this Agreement in writing and such writing must be provided to Linn County REC. Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason of the assignment. An assignee is responsible for meeting the same obligations as the assignor.

6.1.1    Either Party may assign this Agreement without the consent of the other Party to any affiliate (including mergers, consolidations, or transfers or a sale of a substantial portion of the Party's assets, between the Party and another entity), of the assigning Party that has an equal or greater credit rating and the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement.

6.1.2    The interconnection customer can assign this Agreement, without the consent of Linn County REC, for collateral security purposes to aid in providing financing for the distributed generation facility.

6.2      Limitation on Damages

Except for cases of gross negligence or willful misconduct, the liability of any Party to this Agreement shall be limited to direct actual damages, including death, bodily injury, third-party claims, and reasonable attorney's fees, and all other damages at law are waived. Under no circumstances, except for cases of gross negligence or willful misconduct, shall any Party or its directors, officers, employees, and agents, or any of them, be liable to another Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary, or consequential damages, including lost profits, lost revenues, replacement power, cost of capital, or replacement equipment. This limitation on damages shall not affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement. The provisions of this Article 6.2 shall survive the termination or expiration of the Agreement.

6.3      Indemnity

6.3.1    This provision protects each Party from liability incurred as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 6.2.

- 6.3.2 The interconnection customer shall indemnify and defend Linn County REC and Linn County REC'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.
- 6.3.3 Linn County REC 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 Linn County REC's negligent installation, operation, modification, maintenance, or removal of its interconnection facilities or electric distribution system, or Linn County REC's willful misconduct or breach of this Agreement.
- 6.3.4 Within 5 business days after receipt by an indemnified Party of any claim or notice that an action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply has commenced, the indemnified Party shall notify the indemnifying Party of such fact. The failure to notify, or a delay in notification, shall not affect a Party's indemnification obligation unless that failure or delay is materially prejudicial to the indemnifying Party.
- 6.3.5 If an indemnified Party is entitled to indemnification under this Article as a result of a claim, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, that indemnified Party may, at the expense of the indemnifying Party, contest, settle, or consent to the entry of any judgment with respect to, or pay in full, the claim.
- 6.3.6 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this Article, the amount owing to the indemnified person shall be the amount of the indemnified Party's actual loss, net of any insurance or other recovery by the indemnified Party.

#### 6.4 Force Majeure

- 6.4.1 As used in this Article, a force majeure event shall mean any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage, or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities (e.g., MISO), or any other cause beyond a Party's control. A force majeure event does not

include an act of gross negligence or intentional wrongdoing by the Party claiming force majeure.

- 6.4.2 If a force majeure event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the force majeure event ("Affected Party") shall notify the other Party of the existence of the force majeure event as soon as reasonably possible. The notification will specify the circumstances of the force majeure event, its expected duration (if known), and the steps that the Affected Party is taking and will take to mitigate the effects of the event on its performance (if known). If the initial notification is verbal, it must be followed up with a written notification promptly thereafter. The Affected Party shall keep the other Party informed on a periodic basis of developments relating to the force majeure event until the event ends. The Affected Party may suspend or modify its obligations under this Agreement without liability only to the extent that the effect of the force majeure event cannot be otherwise mitigated.

## 6.5 Default

- 6.5.1 No default shall exist when the failure to discharge an obligation results from a force majeure event as defined in this Agreement, or the result of an act or omission of the other Party.
- 6.5.2 A Party shall be in default ("Default") of this Agreement if it fails in any material respect to comply with, observe, or perform, or defaults in the performance of, any covenant or obligation under this Agreement and fails to cure the failure within 60 calendar days after receiving written notice from the other Party. Upon a default of this Agreement, the non-defaulting Party shall give written notice of the default to the defaulting Party. Except as provided in Article 6.5.3, the defaulting Party has 60 calendar days after receipt of the default notice to cure the default; provided, however, if the default cannot be cured within 60 calendar days, the defaulting Party shall commence the cure within 20 calendar days after original notice and complete the cure within six months from receipt of the default notice; and, if cured within that time, the default specified in the notice shall cease to exist.
- 6.5.3 If a Party has assigned this Agreement in a manner that is not specifically authorized by Article 6.1, fails to provide reasonable access pursuant to Article 2.3, and is in default of its obligations pursuant to Article 7, or if a Party is in default of its payment obligations pursuant to Article 5 of this Agreement, the defaulting Party has 30 days from receipt of the default notice to cure the default.

6.5.4 If a default is not cured as provided for in this Article, or if a default is not capable of being cured within the period provided for in this Article, the non-defaulting Party shall have the right to terminate this Agreement without liability by written notice, and be relieved of any further obligation under this Agreement and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due under this Agreement, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article shall survive termination of this Agreement.

#### Article 7. Insurance

- 7.1 For distributed generation facilities with a nameplate capacity less than 500 kVA, the interconnection customer shall carry general liability insurance coverage, such as, but not limited to, homeowner's insurance.
- 7.2 For distributed generation facilities with a nameplate capacity of 500 kVA or above, the interconnection customer shall carry sufficient insurance coverage so that the maximum comprehensive/general liability coverage that is continuously maintained by the interconnection customer during the term shall be not less than \$2,000,000 for each occurrence, and an aggregate, if any, of at least \$4,000,000. Linn County REC, its officers, employees and agents shall be added as an additional insured on this policy. The interconnection customer agrees to provide Linn County REC with at least 30 calendar days' advance written notice of cancellation, reduction in limits, or non-renewal of any insurance policy required by this Article.

#### Article 8. Dispute Resolution

- 8.1 Parties shall attempt to resolve all disputes regarding interconnection as provided in this Article in a good faith manner.
- 8.2 If there is a dispute between the Parties about an interpretation of the Agreement, the aggrieved Party shall issue a written notice to the other Party to the agreement that specifies the dispute and the Agreement articles that are disputed.
- 8.3 A meeting between the Parties shall be held within ten business days after receipt of the written notice. Persons with decision-making authority from each Party shall attend the meeting. If the dispute involves technical issues, persons with sufficient technical expertise and familiarity with the issue in dispute from each Party shall also attend the meeting. If the Parties agree, the meeting may be conducted by teleconference.
- 8.4 After the first meeting, each Party may seek resolution through the Iowa Utilities Board Chapter 6 complaint procedures (199 IAC 6). Dispute resolution under

these procedures will initially be conducted informally under 199 IAC 6.2 through 6.4 to minimize cost and delay. If any Party is dissatisfied with the outcome of the informal process, the Party may file a formal complaint with the Board under 199 IAC 6.5.

- 8.5 Pursuit of dispute resolution may not affect an interconnection request or an interconnection applicant's position in Linn County REC's interconnection review order.
- 8.6 If the Parties fail to resolve their dispute under the dispute resolution provisions of this Article, nothing in this Article shall affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement.

## Article 9.      Miscellaneous

### 9.1      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, without regard to its conflicts of law principles. This Agreement is subject to all applicable laws and regulations. Each Party expressly reserves the right to seek change in, appeal, or otherwise contest any laws, orders, or regulations of a governmental authority. The language in all parts of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against Linn County REC or interconnection customer, regardless of the involvement of either Party in drafting this Agreement.

### 9.2      Amendment

Modification of this Agreement shall be only by a written instrument duly executed by both Parties.

### 9.3      No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations in this Agreement assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

### 9.4      Waiver

- 9.4.1 Except as otherwise provided in this Agreement, a Party's compliance with any obligation, covenant, agreement, or condition in this Agreement may be waived by the Party entitled to the benefits thereof only by a

written instrument signed by the Party granting the waiver, but the waiver or failure to insist upon strict compliance with the obligation, covenant, agreement, or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

9.4.2. Failure of any Party to enforce or insist upon compliance with any of the terms or conditions of this Agreement, or to give notice or declare this Agreement or the rights under this Agreement terminated, shall not constitute a waiver or relinquishment of any rights set out in this Agreement, but the same shall be and remain at all times in full force and effect, unless and only to the extent expressly set forth in a written document signed by that Party granting the waiver or relinquishing any such rights. Any waiver granted, or relinquishment of any right, by a Party shall not operate as a relinquishment of any other rights or a waiver of any other failure of the Party granted the waiver to comply with any obligation, covenant, agreement, or condition of this Agreement.

#### 9.5 Entire Agreement

Except as provided in Article 9.1, this Agreement, including all attachments and the completed Standard Certificate of Completion (199 IAC 45.15), constitutes the entire Agreement between the Parties with reference to the subject matter of this Agreement, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

#### 9.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original, but all constitute one and the same instrument.

#### 9.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties, or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

#### 9.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent

jurisdiction or other governmental authority, (1) that portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by the ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

## 9.9 Environmental Releases

Each Party shall notify the other Party of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the distributed generation facility or the interconnection facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided that Party makes a good faith effort to provide the notice no later than 24 hours after that Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

## 9.10 Subcontractors

Nothing in this Agreement shall prevent a Party from using the services of any subcontractor it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing services and each Party shall remain primarily liable to the other Party for the performance of the subcontractor.

9.10.1 A subcontract relationship does not relieve any Party of any of its obligations under this Agreement. The hiring Party remains responsible to the other Party for the acts or omissions of its subcontractor. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of the hiring Party.

9.10.2 The obligations under this Article cannot be limited in any way by any limitation of subcontractor's insurance.

## Article 10. Notices

### 10.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first-class mail, postage prepaid, to the person specified below:

If Notice is to Interconnection Customer:

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

If Notice is to Linn County REC:

Utility: Linn County REC  
Attention: Engineering Manager  
Address: 5695 REC Drive Po Box 69  
City: Marion State IA Zip: 52302  
Phone: 319-377-1587 Fax: 319-377-9134  
E-mail: renewables@linncountyrec.com

Alternative Forms of Notice:

Any notice or request required or permitted to be given by either Party to the other Party and not required by this Agreement to be in writing may be given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out above.

## 10.2 Billing and Payment

Billings and payments shall be sent to the contacts specified for Notices in Article 10.1 above, unless a different address is set out below:

If Billing or Payment is to Interconnection Customer:

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

If Billing or Payment is to Linn County REC:

Utility: Linn County REC  
Attention: Engineering Manager  
Address: 5695 REC Drive Po Box 69  
City: Marion State IA Zip: 52302



### 10.3 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications that may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities. If no such operating representative is designated below, such notices will be sent to the contacts listed in Article 10.1 above.

#### Interconnection Customer's Operating Representative:

Name: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

#### Linn County REC's Operating Representative:

Attention: Engineering Manager  
Address: 5695 REC Drive Po Box 69  
City: Marion State IA Zip: 52302

### 10.4 Changes to the Notice Information

Either Party may change this notice information by giving five business days' written notice before the effective date of the change.

## Article 11. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

#### For the Interconnection Customer:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

#### For Linn County REC:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

ATTACHMENT 1  
Levels 2 To 4: Standard Interconnection Agreement

Definitions

Adverse system impact – A negative effect that compromises the safety or reliability of the electric distribution system or materially affects the quality of electric service provided by Linn County REC to other customers.

AEP facility – An AEP facility as defined in 199 IAC 15 (Iowa Utilities Board Chapter 15 rules on Cogeneration and Small Power Production), used by an interconnection customer to generate electricity that operates in parallel with the electric distribution system. An AEP facility typically includes an electric generator and the interconnection equipment required to interconnect safely with the electric distribution system or local electric power system.

Applicable laws and regulations – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any governmental authority, having jurisdiction over the Parties.

Commissioning test – Tests applied to a distributed generation facility by the applicant after construction is completed to verify that the facility does not create adverse system impacts. At a minimum, the scope of the commissioning tests performed shall include the commissioning test specified IEEE Standard 1547 Section 5.4 “Commissioning tests.”

Distributed generation facility – A qualifying facility or an AEP facility.

Distribution upgrades – A required addition or modification to Linn County REC’s electric distribution system at or beyond the point of interconnection to accommodate the interconnection of a distributed generation facility. Distribution upgrades do not include interconnection facilities.

Electric distribution system – The facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries from interchanges with higher voltage transmission networks that transport bulk power over longer distances. The voltage levels at which electric distribution systems operate differ among areas but generally carry less than 100 kilovolts of electricity. Electric distribution system has the same meaning as the term Area EPS, as defined in 3.1.6.1 of IEEE Standard 1547.

Facilities study – An engineering study conducted by Linn County REC to determine the required modifications to Linn County REC’s electric distribution system, including the

cost and the time required to build and install the modifications, as necessary to accommodate an interconnection request.

Force majeure event – Any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage, or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation, or restriction imposed by governmental, military, or lawfully established civilian authorities (e.g., MISO), or any other cause beyond a Party's control. A force majeure event does not include an act of gross negligence or intentional wrongdoing by the Party claiming force majeure.

Governmental authority – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that this term does not include the interconnection customer, Linn County REC, or any affiliate of either.

IEEE Standard 1547 – 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."

IEEE Standard 1547.1 – The IEEE Standard 1547.1 (2005), "Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems."

Interconnection agreement or Agreement – The agreement between the interconnection customer and Linn County REC. The interconnection agreement governs the connection of the distributed generation facility to Linn County REC's electric distribution system and the ongoing operation of the distributed generation facility after it is connected to Linn County REC's electric distribution system.

Interconnection customer – The entity entering into this Agreement for the purpose of interconnecting a distributed generation facility to Linn County REC's electric distribution system.

Interconnection equipment – A group of components or an integrated system connecting an electric generator with a local electric power system or an electric distribution system that includes all interface equipment, including switchgear, protective devices, inverters, or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.

Interconnection facilities – Facilities and equipment required by Linn County REC to accommodate the interconnection of a distributed generation facility. Collectively, interconnection facilities include all facilities, and equipment between the distributed generation facility and the point of interconnection, including modification, additions, or upgrades that are necessary to physically and electrically interconnect the distributed generation facility to the electric distribution system. Interconnection facilities are sole use facilities and do not include distribution upgrades.

Interconnection request – An interconnection customer's request, on the required form, for the interconnection of a new distributed generation facility, or to increase the capacity or change the operating characteristics of an existing distributed generation facility that is interconnected with Linn County REC's electric distribution system.

Interconnection study – Any of the following studies, as determined to be appropriate by Linn County REC: the interconnection feasibility study, the interconnection system impact study, and the interconnection facilities study.

Iowa standard distributed generation interconnection rules – The most current version of the procedures for interconnecting distributed generation facilities adopted by the Iowa Utilities Board. See Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45).

Parallel operation or Parallel – The state of operation that occurs when a distributed generation facility is connected electrically to the electric distribution system for longer than 100 milliseconds.

Point of interconnection – The point where the distributed generation facility is electrically connected to the electric distribution system. Point of interconnection has the same meaning as the term “point of common coupling” defined in 3.1.13 of IEEE Standard 1547.

Qualifying facility – A cogeneration facility or a small power production facility that is a qualifying facility under 18 CFR Part 292, Subpart B, used by an interconnection customer to generate electricity that operates in parallel with the electric distribution system. A qualifying facility typically includes an electric generator and the interconnection equipment required to interconnect safely with the electric distribution system or local electric power system.

Utility – Any electric utility that is subject to rate regulation by the Iowa Utilities Board.

Witness test – For lab-certified equipment, verification (either by an on-site observation or review of documents) by Linn County REC that the interconnection installation evaluation required by IEEE Standard 1547 Section 5.3 and the commissioning test required by IEEE Standard 1547 Section 5.4 have been adequately performed. For interconnection equipment that has not been lab-certified, the witness test shall also

include verification by Linn County REC of the on-site design tests required by IEEE Standard 1547 Section 5.1 and verification by Linn County REC of production tests required by IEEE Standard 1547 Section 5.2. All tests verified by Linn County REC are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

ATTACHMENT 2  
Levels 2 To 4: Standard Interconnection Agreement

Construction Schedule, Proposed Equipment & Settings

This attachment is to be completed by the interconnection customer and shall include the following:

1. The construction schedule for the distributed generation facility.
2. A one-line diagram indicating the distributed generation facility, interconnection equipment, interconnection facilities, metering equipment, and distribution upgrades.
3. Component specifications for equipment identified in the one-line diagram.
4. Component settings.
5. Proposed sequence of operations.
6. A three-line diagram showing current potential circuits for protective relays.
7. Relay tripping and control schematic diagram.
8. A plot plan showing the distributed generation facility's location in relation to streets, alleys, address or other geographical markers.

ATTACHMENT 3  
Levels 2 To 4: Standard Interconnection Agreement

Description, Costs and Time Required to  
Build and Install Linn County REC's Interconnection Facilities

This attachment is to be completed by Linn County REC and shall include the following:

1. Required interconnection facilities, including any required metering.
2. An estimate of itemized costs charged by Linn County REC for interconnection, including overheads, based on results from prior studies.
3. An estimate for the time required to build and install Linn County REC's interconnection facilities based on results from prior studies and an estimate of the date upon which the facilities will be completed.

ATTACHMENT 4  
Levels 2 To 4: Standard Interconnection Agreement

Operating Requirements for Distributed Generation Facilities Operating in Parallel

Linn County REC shall list specific operating practices that apply to this distributed generation interconnection and the conditions under which each listed specific operating practice applies.



ATTACHMENT 5  
Levels 2 To 4: Standard Interconnection Agreement

Monitoring and Control Requirements

This attachment is to be completed by Linn County REC and shall include the following:

1. Linn County REC's monitoring and control requirements must be specified, along with a reference to Linn County REC's written requirements documents from which these requirements are derived.
2. An internet link to the requirements documents.

ATTACHMENT 6  
Levels 2 To 4: Standard Interconnection Agreement

Metering Requirements

This attachment is to be completed by Linn County REC and shall include the following:

1. The metering requirements for the distributed generation facility.
2. Identification of the appropriate metering rules filed with the Iowa Utilities Board under subrule 199 IAC 20.2(5), and inspection and testing practices adopted under rule 199 IAC 20.6 that establish these requirements.
3. An internet link to these rules and practices.

ATTACHMENT 7  
Levels 2 To 4: Standard Interconnection Agreement

As Built Documents

This attachment is to be completed by the interconnection customer and shall include the following:

When it returns the certificate of completion to Linn County REC, the interconnection customer shall provide Linn County REC with documents detailing the as-built status of the following:

1. A one-line diagram indicating the distributed generation facility, interconnection equipment, interconnection facilities, and metering equipment.
2. Component specifications for equipment identified in the one-line diagram.
3. Component settings.
4. Proposed sequence of operations.
5. A three-line diagram showing current potential circuits for protective relays.
6. Relay tripping and control schematic diagram.

**199—45.18(476) Appendix E – Standard interconnection feasibility study agreement**

**INTERCONNECTION FEASIBILITY STUDY AGREEMENT**

This agreement ("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, by and between \_\_\_\_\_ ("interconnection customer"), as an individual person, or as a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, and \_\_\_\_\_, ("Linn County REC"), a \_\_\_\_\_ existing under the laws of the State of Iowa. Interconnection customer and Linn County REC each may be referred to as a "Party," or collectively as the "Parties."

**Recitals:**

Whereas, interconnection customer is proposing to develop a distributed generation facility or modify an existing distributed generation facility consistent with the interconnection request application form submitted by interconnection customer on \_\_\_\_\_; and

Whereas, interconnection customer desires to interconnect the distributed generation facility with Linn County REC's electric distribution system; and

Whereas, interconnection customer has requested Linn County REC to perform an interconnection feasibility study to assess the feasibility of interconnecting the proposed distributed generation facility to Linn County REC's electric distribution system;

Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. All terms defined in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1) shall have the meanings indicated in that rule when used in this Agreement.
2. Interconnection customer elects and Linn County REC shall cause to be performed an interconnection feasibility study consistent with Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.11).
3. The scope of the interconnection feasibility study shall be based upon the information set forth in the interconnection request application form and Attachment A to this Agreement.
4. The interconnection feasibility study shall be based on the technical information provided by interconnection customer in the interconnection request application form, as modified with the written agreement of the Parties. Linn County REC has the right to request additional technical information from interconnection customer during the course of the interconnection feasibility study. If the

- interconnection customer modifies its interconnection request, the time to complete the interconnection feasibility study may be extended by Linn County REC.
5. In performing the study, Linn County REC shall rely on existing studies of recent vintage to the extent practical. The interconnection customer will not be charged for such existing studies; however, interconnection customer is responsible for the cost of applying any existing study to the interconnection customer specific requirements and for any new study that Linn County REC performs.
  6. The interconnection feasibility study report must provide the following information:
    - 6.1 Identification of any equipment short circuit capability limits exceeded as a result of the interconnection,
    - 6.2 Identification of any thermal overload or voltage limit violations resulting from the interconnection, and
    - 6.3 A description and nonbinding estimated cost of facilities required to interconnect the distributed generation facility to Linn County REC's electric distribution system as required under Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.11(5)"a").
  7. Interconnection customer shall provide a study deposit equal to 100% of the estimated nonbinding study costs at least 20 business days prior to the date upon which the study commences.
  8. The interconnection feasibility study shall be completed and the results shall be transmitted to interconnection customer within 45 business days after this Agreement is signed by the Parties or the complete study deposit is received by Linn County REC, whichever occurs later. If the interconnection customer's study request involves more than one point of interconnection and configuration, the time to complete the interconnection feasibility study may be extended by Linn County REC.
  9. Study fees shall be based on actual costs and will be invoiced to interconnection customer after the study is transmitted to interconnection customer. The invoice must include an itemized listing of employee time and costs expended on the study.
  10. Interconnection customer shall pay any actual study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice. Linn County REC shall refund any excess deposit amount without interest within 30 calendar days after the invoice.

In witness whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of interconnection customer]

Signed: \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title: \_\_\_\_\_

Linn County REC

Signed: \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title: \_\_\_\_\_

ATTACHMENT A  
Interconnection Feasibility Study Agreement

Assumptions Used in Conducting the Interconnection Feasibility Study

The interconnection feasibility study will be based upon the information in the interconnection request application form, agreed upon on \_\_\_\_\_:

1. Point of interconnection and configuration to be studied.

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2. Alternative points of interconnection and configurations to be studied.

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Note: 1 and 2 are to be completed by the interconnection customer. Any additional assumptions (explained below) may be provided by either the interconnection customer or Linn County REC.

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**199—45.19(476) Appendix F – Standard interconnection system impact study agreement**

**INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

This agreement ("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, by and between \_\_\_\_\_ ("interconnection customer"), as an individual person, or as a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, and \_\_\_\_\_, ("Linn County REC"), a \_\_\_\_\_ existing under the laws of the State of Iowa. Interconnection customer and Linn County REC each may be referred to as a "Party," or collectively as the "Parties."

**Recitals:**

Whereas, interconnection customer is proposing to develop a distributed generation facility or modifying an existing distributed generation facility consistent with the interconnection request application form completed by interconnection customer on \_\_\_\_\_; and

Whereas, interconnection customer desires to interconnect the distributed generation facility to Linn County REC's electric distribution system; and

Whereas, Linn County REC has completed an interconnection feasibility study and provided the results of said study to interconnection customer (this recital to be omitted if the Parties have agreed to forego the interconnection feasibility study); and

Whereas, interconnection customer has requested Linn County REC to perform an interconnection system impact study to assess the impact of interconnecting the distributed generation facility to Linn County REC's electric distribution system;

Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. All terms defined in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1) shall have the meanings indicated in that rule when used in this Agreement.
2. Interconnection customer elects and Linn County REC shall cause to be performed an interconnection system impact study consistent with Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.11).
3. The scope of the interconnection system impact study shall be based upon the information set forth in the interconnection request application form and in Attachment A to this Agreement.
4. The interconnection system impact study shall be based upon the interconnection feasibility study and the technical information provided by

interconnection customer in the interconnection request application form. Linn County REC reserves the right to request additional technical information from interconnection customer. If interconnection customer modifies its proposed point of interconnection, interconnection request, or the technical information provided therein is modified, the time to complete the interconnection system impact study may be extended.

5. The interconnection system impact study report shall provide the following information:
  - 5.1 Identification of any equipment short circuit capability limits exceeded as a result of the interconnection,
  - 5.2 Identification of any thermal overload or voltage limit violations resulting from the interconnection,
  - 5.3 Identification of any instability or inadequately damped response to system disturbances resulting from the interconnection, and
  - 5.4 Description and nonbinding estimated cost of facilities required to interconnect the distributed generation facility to Linn County REC's electric distribution system and to address the identified short circuit, thermal overload, voltage, and instability issues as required under Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.11(5)"b").
6. Interconnection customer shall provide a study deposit equal to 100% of the estimated nonbinding study costs at least 20 business days prior to the date upon which the study commences.
7. The interconnection system impact study, if required, shall be completed and the results transmitted to interconnection customer within 45 business days after this Agreement is signed by the Parties or the complete study deposit is received by Linn County REC, whichever occurs later. If the interconnection customer's study request involves more than one point of interconnection and configuration, the time to complete the interconnection system impact study may be extended by Linn County REC.
8. Study fees shall be based on actual costs and shall be invoiced to interconnection customer after the study is transmitted to interconnection customer. The invoice shall include an itemized listing of employee time and costs expended on the study.
9. Interconnection customer shall pay any study costs that exceed the deposit within 30 calendar days after receipt of the invoice. Linn County REC shall refund any excess deposit amount within 30 calendar days of the invoice.

In witness thereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Interconnection customer

Signed: \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title: \_\_\_\_\_

Linn County REC

Signed: \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title: \_\_\_\_\_

ATTACHMENT A  
Interconnection System Impact Study Agreement

Assumptions Used in Conducting the Interconnection System Impact Study

The interconnection system impact study shall be based upon the results of the interconnection feasibility study, subject to any modifications in accordance with Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.11), and the following assumptions:

1. Point of interconnection and configuration to be studied.

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2. Alternative points of interconnection and configurations to be studied.

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Note: 1 and 2 are to be completed by the interconnection customer. Any additional assumptions (explained below) may be provided by either the interconnection customer or Linn County REC.

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**199—45.20(476) Appendix G – Standard interconnection facilities study agreement**

**INTERCONNECTION FACILITIES STUDY AGREEMENT**

This agreement ("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, by and between \_\_\_\_\_ ("interconnection customer"), as an individual person, or as a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, and \_\_\_\_\_, ("Linn County REC"), a \_\_\_\_\_ existing under the laws of the State of Iowa. Interconnection customer and Linn County REC each may be referred to as a "Party," or collectively as the "Parties."

**Recitals:**

Whereas, interconnection customer is proposing to develop a distributed generation facility or modifying an existing distributed generation facility consistent with the interconnection request application form completed by interconnection customer on \_\_\_\_\_; and

Whereas, interconnection customer desires to interconnect the distributed generation facility with Linn County REC's electric distribution system; and

Whereas, Linn County REC has completed an interconnection system impact study and provided the results of said study to interconnection customer; and

Whereas, interconnection customer has requested Linn County REC to perform an interconnection facilities study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to interconnect the distributed generation facility;

Now, therefore, in consideration of and subject to the mutual covenants contained in this Agreement, the Parties agree as follows:

1. All terms defined in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1) shall have the meanings indicated in that rule when used in this Agreement.
2. Interconnection customer elects and Linn County REC shall cause to be performed an interconnection facilities study consistent with Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.11).
3. The scope of the interconnection facilities study shall be determined by the information provided in Attachment A to this Agreement.
4. An interconnection facilities study report (1) shall provide a description, estimated cost of distribution upgrades, and a schedule for required facilities to interconnect the distributed generation facility to Linn County REC's electric

distribution system; and (2) shall address all issues identified in the interconnection system impact study (or identified in this study if the system impact study is combined herein).

5. Interconnection customer shall provide a study deposit of 100% of the estimated nonbinding study costs at least 20 business days prior to the date upon which the study commences.
6. In cases where no distribution upgrades are required, the interconnection facilities study shall be completed and the results shall be transmitted to interconnection customer within 15 business days after this Agreement is signed by the Parties. In cases where distribution upgrades are required, the interconnection facilities study shall be completed and the results shall be transmitted to interconnection customer within 35 business days after this Agreement is signed by the Parties or the complete study deposit is received by Linn County REC, whichever occurs later.
7. Study fees shall be based on actual costs and will be invoiced to interconnection customer after the study is transmitted to interconnection customer. The invoice shall include an itemized listing of employee time and costs expended on the study.
8. Interconnection customer shall pay any actual study costs that exceed the deposit within 30 calendar days on receipt of the invoice. Linn County REC shall refund any excess deposit amount within 30 calendar days after the invoice.

In witness whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Interconnection customer

Signed: \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title: \_\_\_\_\_

Linn County REC

Signed: \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title: \_\_\_\_\_

ATTACHMENT A  
Interconnection Facilities Study Agreement

Minimum Information that the Interconnection Customer Must Provide with the  
Interconnection Facilities Study Agreement

Provide location plan and simplified one-line diagram of the distributed generation facilities.

For staged projects, please indicate size and location of planned additional future generation.

On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT).

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps.

One set of metering is required for each generation connection to Linn County REC's electric distribution system.

Number of generation connections: \_\_\_\_\_

Will an alternate source of auxiliary power be available during CT/PT maintenance?  
Yes \_\_\_\_\_ No \_\_\_\_\_

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total distributed generation capacity? Yes \_\_\_\_\_ No \_\_\_\_\_  
(Please indicate on the one-line diagram).

What type of control system or PLC will be located at the distributed generation facility?  
\_\_\_\_\_.

What protocol does the control system or PLC use? \_\_\_\_\_.

Please provide a scale drawing of the site. Indicate the point of interconnection, distribution line, and property lines.

Number of third-party easements required for Linn County REC's interconnection facilities: \_\_\_\_\_

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To be Completed in Coordination with Linn County REC

Is the distributed generation facility located in Linn County REC's service area?

Yes \_\_\_\_\_ No \_\_\_\_\_

If No, please provide name of local provider: \_\_\_\_\_

Please provide the following proposed schedule dates:

Begin construction date: \_\_\_\_\_

Generator step-up transformers receive back feed power date: \_\_\_\_\_

Commissioning testing date: \_\_\_\_\_

Witness testing date: \_\_\_\_\_

Commercial operation date: \_\_\_\_\_