



INTERCONNECTION APPLICATION FOR LESS THAN 40 kW

Persons interested in applying for the interconnection of a distributed energy resource to Stearns Electric Association's distribution system through the Fast Track or Study Processes are to fill out this Interconnection Application. If you are unsure which of which application to fill out, fill out this application. This application is to be filled out completely by the Applicant or as noted in each section of the application. Stearns Electric will contact the applicant within 10 business days once the Interconnection Application and the corresponding processing fee is submitted. Stearns Electric will then notify the Applicant of the completeness of their application. If the application is deemed incomplete, Stearns Electric will provide the Applicant with a list of missing material. The Applicant will then have 10 business days to provide this information or request an extension, otherwise the application will be deemed incomplete and the Applicant will lose their place in the queue.

CHECKLIST FOR SUBMISSION TO STEARNS ELECTRIC ASSOCIATION:

The items below shall be included with submittal of the Interconnection Application to Stearns Electric. Failure to include all items will deem the Interconnection Application incomplete.

- Non-Refundable Processing Fee**
 - Fast Track
 - \$100 + \$1/kW for Certified Systems
 - \$100 + \$2/kW for Non-Certified Systems
 - Study Process
 - \$1,000 + \$2/kW Down Payment
 - Additional Study Fees May Apply
- One-line Diagram** *(This one-line diagram must be signed and stamped by a Professional Engineer licensed in Minnesota if the DER is uncertified greater than 20 kW AC or if certified system is over 250 kW.)*
 - **Applicant Name**
 - **Installer Name and Contact Information**
 - **Address where DER system will be installed – must match application address** *(Be sure to list the address for the protective interface equipment if the equipment is located at a different address than the DER system.)*
 - **Correct positions for all equipment** *(including but not limited to panels, inverter and DC/AC disconnect. Include distances between equipment and any labeling found on equipment.)*
- Schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits**
- Inverter Specification Sheet(s)** *(if applicable)*
- Documentation that describes and details the operation of protection and control schemes**
- Documentation showing site control**
- Aerial map showing DER system layout including major roadways and true north**

Possible additional documentation:

- If the DER export capacity is limited, include information material explaining the limiting capabilities.
- If Energy Storage is included with the proposed DER system, include the Energy Storage Application.

If you have any questions regarding this application, please contact the DER Coordinator by calling Stearns Electric at (800) 962-0655.

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*** INDICATES SECTION MUST BE COMPLETED**

SECTION I: GENERAL*

Select Review Process: Fast Track Process Study Process

Application For: New Distribution Energy Resource Capacity Addition or Material Modification to Existing Distributed Energy Resource

If capacity addition or material modification to existing facility, please describe:

Distributed Energy Resource will be used for what reason? (check all that apply)

Net Metering Supply Power to Interconnection Customer Supply Power to Area EPS

Installed DER System Cost (before incentives): \$ _____

SECTION II: INTERCONNECTION CUSTOMER*

Name: _____ Account Number: _____
First MI Last

Meter Number: _____

Mailing Address: _____
Street Apt./Suite/PO Box City State Zip Code

Email Address: _____ Mobile Phone: _____

Home Phone: _____ Other Phone: _____

SECTION III: APPLICATION AGENT*

Is the Applicant using an Application Agent for this application? Yes No (If no, please skip to Section IV)

Application Agent Contact Name: _____
First MI Last

Company Name: _____

Email Address: _____ Company Phone: _____

Mobile Phone: _____ Other Phone: _____

SECTION IV: DISTRIBUTED ENERGY RESOURCE INFORMATION*

Location/Site Address: _____
Street Apt./Suite/PO Box City State Zip Code

Will the proposed DER system be interconnected to an existing electric service? Yes No Estimated Installation Date: _____

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Is the Distributed Energy Resource a single generating unit or multiple? Single Multiple

DER Type (Check all that apply):

- Solar Photovoltaic Wind Energy Storage Combined Heat and Power
- Solar Thermal Other: _____

DER systems with Energy Storage must also submit the Energy Storage Application to Stearns Electric.

Total Number of Distributed Energy Resources to be interconnected pursuant to this Interconnection Application: _____

Phase configuration of Distributed Energy Resource(s)? Single Phase Three Phase

Type of Generator: Inverter Synchronous Induction

Aggregate DER Capacity:

The sum of nameplate capacity of all generation and storage devices at the point of common coupling (PCC.) _____ kW_{ac} _____ kVA_{ac}

SECTION V: EXPORT CAPACITY LIMITATION*

Is the export capability of the DER limited? Yes No

If the DER export capacity is limited, include information material explaining the limiting capabilities.

Maximum Physical Export Capacity Requested: _____ kW_{ac}

If Yes, please provide additional details describing method of export limitation:

SECTION VI: LOAD INFORMATION*

Interconnection Customer's or Customer-Sited Load: _____ kW_{ac}

Typical Reactive Load (if known): _____

SECTION VII: EQUIPMENT CERTIFICATION *

Is the DER equipment certified? Yes No

Please list all certified IEEE 1547 equipment below. Include all certified equipment manufacturer specification sheets with the Interconnection Application submission.

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

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SECTION VIII: PRIME MOVER*

Please indicate the prime mover:

- Solar Photovoltaic Microturbine Fuel Cell Reciprocating Engine
- Gas Turbine Other (please specify): _____

Is the prime mover compatible with certified protection equipment package? Yes No

DER Manufacturer: _____

Model Name & Number: _____ Version: _____

List of Adjustable Set Points for Protection Equipment or Software:

Summer Name Plate Rating: _____ kW_{ac} Summer Name Plate Rating: _____ kVA_{ac}

Winter Name Plate Rating: _____ kW_{ac} Winter Name Plate Rating: _____ kVA_{ac}

Rated Power Factor Leading: _____ Lagging: _____

A completed Power System Load Flow data sheet must be supplied with the Interconnection Application.

SECTION IX – SECTION XII TO BE COMPLETED AS NEEDED. OTHERWISE PLEASE SKIP TO SECTION XIII
Please contact the DER Coordinator at (800) 962-0655 for any questions.

SECTION IX: DISTRIBUTED ENERGY RESOURCE CHARACTERISTIC DATA (for Inverter-based Machines; typical Solar install)

Max Design Fault Contribution Current: _____

Is your response to the previous field an Instantaneous or RMS measurement? Instantaneous RMS

Harmonic Characteristics:

Start-up Requirements:

SECTION X: DISTRIBUTED ENERGY RESOURCE CHARACTERISTIC DATA (for Synchronous Machines; skip for Solar Photovoltaic)

RPM Frequency: _____ Neutral Grounding Resistor: _____

Direct Axis Synchronous Reactance, X_d: _____ Zero Sequence Reactance, X₀: _____

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Direct Axis Transient Reactance, X'_d : _____ KVA Base: _____
 Direct Axis Subtransient Reactance, X''_d : _____ Field Volts: _____
 Negative Sequence Reactance, X_2 : _____ Field Amperes: _____

Please provide the appropriate IEEE model block diagram of excitation system, governing system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be submitted.

SECTION XI: DISTRIBUTED ENERGY RESOURCE CHARACTERIZING DATA (for Induction Machines; skip for Solar Photovoltaic)

RPM Frequency: _____ Neutral Grounding Resistor: _____
 Motoring Power (kW): _____ Exciting Current: _____
 Heating Time Constant: _____ Temperature Rise: _____
 Rotor Resistance, R_r : _____ Frame Size: _____
 Stator Resistance, R_s : _____ Design Letter: _____
 Stator Reactance, X_s : _____ Reactive Power Required in Vars (No Load): _____
 Rotor Reactance, X_r : _____ Reactive Power Required in Vars (Full Load): _____
 Magnetizing Reactance, X_m : _____ Total Rotating Inertia, H: _____
 Short Circuit Reactance, X''_d : _____

SECTION XII: INTERCONNECTION FACILITIES INFORMATION

Will a transformer be used between the DER and the Point of Common Coupling? Yes No

Will the transformer be provided by the Interconnection Customer? Yes No

If yes, please fill in the fields below.

Proposed location of protective interface equipment on property:

Transformer Data (For Interconnection Customer-Owned Transformer)

What is the phase configuration of the transformer? Single Phase Three Phase

Size (kVA): _____ Transformer Impedance (%): _____ On kVA Base: _____

Transformer Volts (Primary): _____ Delta: _____ Wye: _____ Wye Grounded: _____

Transformer Volts (Secondary): _____ Delta: _____ Wye: _____ Wye Grounded: _____

Transformer Volts (Tertiary): _____ Delta: _____ Wye: _____ Wye Grounded: _____

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Transformer Fuse Data (For Interconnection Customer-Owned Fuse)

Manufacturer: _____ Type: _____
 Size: _____ Speed: _____

Transformer Fuse Data (For Interconnection Customer-Owned Fuse)

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

Interconnection Protective Relays (For Microprocessor Controlled Relays)

Setpoint Function	Minimum	Maximum

Interconnection Protective Relays (For Relays with Discrete Components)

Manufacturer:	Type:	Style/Catalog No.:	Proposed Setting:

Current Transformer Data:

Manufacturer:	Type:	Accuracy Class:	Proposed Ratio Connection:

continued on next page

Potential Transformer Data:

Manufacturer:	Type:	Accuracy Class:	Proposed Ratio Connection:

SECTION XIII: INTERCONNECTION AGREEMENT*

*Proposed DER interconnections that are also deemed Qualifying Facilities less than 40 kW AC under Minnesota Statute 216B.164 are eligible to sign Stearns Electric's Uniform Contract for Cogeneration and Small Power Production Facilities (**standard practice.**) Included in this agreement are payment terms for excess power generated by the proposed DER system Stearns Electric may purchase. In lieu of Stearns Electric's Uniform Contract for Cogeneration and Small Power Production Facilities, the Interconnection Customer may choose to instead sign Stearns Electric's Distribution Interconnection Agreement.*

The Interconnection Customer requests an Interconnection Agreement to be executed in lieu of Stearns Electric's Uniform Contract for Cogeneration and Small Power Production Facilities. *(Most individuals select No.)*

Yes No

SECTION XIV: DISCLAIMERS* (this section must be completed by the Interconnection Customer)

The Interconnection Customer has opportunities to request a timeline extension during the interconnection process. Failure by the Interconnection Customer to meet or request an extension for a timeline outlined in the Interconnection Process could result in a withdrawn queue position and the need to re-apply.

INITIALS: _____

Propose DER interconnection to Stearns Electric's distribution submitted under the Fast Track Process may be moved into the Study Process if engineering screens are failed during the Interconnection Application review.

INITIALS: _____

SECTION XV: APPLICATION SIGNATURE* (this section must be completed by the Interconnection Customer)

I designate the individual or company listed as my Application Agent to serve as my agent for the purpose of coordinating with the Area EPS Operators on my behalf throughout the interconnection process.

INITIALS: _____

I hereby certify that, to the best of my knowledge, the information provided in this Application is true, and that I have appropriate Site Control in conformance with the Interconnection Process. I agree to abide by the Terms and Conditions of the Interconnection Process and will inform Stearns Electric if the proposed DER system changes from the details listed in this Interconnection Application.

Applicant Signature: _____ **Date:** _____

Please return completed application by mail to:

Stearns Electric Association, ATTN: DER Coordinator, 900 Kraft Dr. SE, PO Box 40, Melrose, MN 56352-0040