

ARTICLE 16

Interconnection and Parallel Operation of Distributed Generation **Adopted 2/20/2002, Revised 3/4/2008, 1/28/2014, 5/31/2016, 11/26/2019, 11/24/2020**

Section 1. Objective. To establish safety, reliability and economic standards for interconnection and parallel operation of distributed generation that encourage the development of member-owned on-site electric generation facilities using renewable fuel sources designed primarily to offset the member's electrical requirements while honoring the Cooperative's obligation to provide electricity to all members on a cooperative basis.

Section 2. Definitions.

Distributed Generation (DG) is defined as any generation built within close proximity to a generating member's load regardless of nameplate or generation capacity or energy/fuel source of such generation and includes, but is not limited to:

- a. Environmentally friendly generators such as photovoltaics (PV), fuel cells, wind turbines;
- b. Microturbines or reciprocating engines fueled by renewable fuels such as landfill gas or methane gas from digesters;
- c. Any qualifying facility (QF) under the Public Utility Regulatory Policies Act of 1978 (PURPA);
- d. Commercially operated emergency and standby diesel generators installed, at locations such as hospitals, hotels or farms;
- e. Residential standby generators which are to be operated in parallel with the Cooperative's distribution system;
- f. Generators installed by a utility which are interconnected to the distribution system.

IEEE Standard 1547 – The Institute of Electrical and Electronic Engineers, Inc. (IEEE) Standard 1547 (2018) “Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces”, as amended and supplemented, at the time the interconnection request is submitted.

IEEE Standard 1547.1 – The IEEE Standard 1547.1 (2020) “Conformance Test Procedures for Equipment Interconnecting Distributed Energy Resources with Electric Power Systems and Associated Interfaces”, as amended and supplemented, at the time the interconnection request is submitted.

Nameplate Capacity – The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions as designated by the manufacturer and is usually indicated on a nameplate physically attached to the power production equipment. If multiple pieces of power production equipment are combined at a location and designed to be

operated as a single facility (ie: they have a single point of interconnection with the Cooperative system), the individual output ratings shall be combined to determine the total nameplate capacity of said facility.

Small Generator Facility (SGF) – The equipment used by an interconnection customer to generate, and/or store electricity which operates in parallel with the electric distribution system and has a Nameplate Capacity of 25 kW or less. A Small Generator Facility typically includes an electric generator, prime mover, and the interconnection equipment required to safely interconnect with the electric distribution system or local electric power system. Batteries may be part of a SGF, when batteries are utilized in conjunction with the generation source to store and/or deliver energy. To qualify as a SGF, these facilities must have been approved by a nationally recognized testing laboratory and must have been approved for interconnection by the Cooperative following completion of a system impact study.

UL Standard 1741-SA – This is the commonly abbreviated name for the Underwriters Laboratories’ product safety standard entitled “Standard for Inverters Converters, and Controllers and Interconnection System Equipment for Use with Distributed Energy Resources”, January 28, 2010, edition, as amended and supplemented.

Witness Test – Verification by the Cooperative (either by an on-site observation and/or review of documentation) that the interconnection installation evaluation and commissioning test required by IEEE Standard 1547 have been adequately performed. For interconnection equipment that has not been lab certified or field approved, the witness test shall also include the verification by the Cooperative of both the on-site design test and production test as required by IEEE Standard 1547. All tests verified by the Cooperative are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

Section 3. Applicability. This interconnection policy applies to Cooperative members proposing to install and interconnect distributed generation facilities that:

- a. Have a nameplate capacity equal to or less than 25 kW AC, or have a nameplate capacity greater than 25 kW AC and fall within the allowable sizes under the current terms of Wabash Valley Power Alliance’s Distributed Generation Policy .
- b. Are not subject to the interconnection requirements of MISO.
- c. Are designed to operate in parallel with the Cooperative’s electric distribution system.

Section 4. Interconnection Requests

- A. Members seeking to interconnect a generator facility to the Cooperative’s system shall submit an interconnection request using an application form similar to the one attached hereto as Attachment A, which may be referred to herein as the Application. The interconnection request may be eligible for expedited interconnection review if the request is for a distributed generation facility using lab certified or field approved interconnection equipment and if Cooperative staff has determined that an expedited review is appropriate.

- B. Interconnection equipment shall be deemed to be lab certified if it is evaluated by a nationally recognized testing laboratory (NRTL) and found to be in compliance with IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity), UL 1741 Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources and NFPA 70 National Electrical Code.
- C. The Member must submit to the Cooperative plans detailing the proposed generation interconnection facilities and must obtain written Cooperative approval for the installation of the generating facilities prior to interconnecting the facility to Cooperative's system. This approval process will include a review by the Cooperative of the effect of the proposed generation on the Cooperative's distribution system, including the generation protection scheme. The Member requesting interconnection shall bear the cost of this review. Installations will not be permitted which are shown to reduce reliability to other members and/or cause voltage conditions on the Cooperative system to be outside of the limits of ANSI C84.1 Range A. Nor shall installations be permitted that are expected to produce objectionable harmonics on the system. Any mitigation required to resolve an unfavorable impact upon the Cooperative's distribution system which are caused by a member-owned generator must be satisfactorily completed by the Cooperative prior to interconnection and shall be paid for by the generation-owning Member. If new or upgraded electrical facilities are required within the Cooperative's system in order to mitigate unfavorable generation interconnection conditions, such upgrade(s) shall be fully owned, operated, and maintained by the Cooperative.

Section 5. Expedited Review

- A. Expedited review may apply to distributed generation facilities upon Cooperative's sole determination that such a review is appropriate.
- B. The Cooperative shall review the application and evaluate the potential for adverse system impacts. Any cost related to new and/or upgraded Cooperative facilities deemed necessary in order to accommodate interconnection of the distributed generation facility shall be borne by the Member. New and/or upgraded facilities, so required, shall be fully owned, operated, and maintained by the Cooperative.
- C. The Cooperative shall make its best effort to inform the applicant, within 15 business days after receipt of the interconnection request, that the interconnection request is complete. If deemed incomplete, Member shall be promptly notified regarding what information or material deficiencies exist.
- D. Once an expedited review application is deemed to be "complete", the Cooperative shall make its best effort to verify, within 20 business days after the end of the time period noted in section 5.C above, that the distributed generation facility equipment can be interconnected safely and reliably.

Section 6. Determination of Completion of Project Review

If the Cooperative determines that a distributed generation facility cannot be interconnected safely or reliably to its system, within a timely manner the Cooperative will provide notification to the Member explaining the Cooperative's reason(s) for denying the interconnection request, as presented. Member shall be allowed to submit a revised application. If the Cooperative determines that a distributed generation facility can be interconnected safely or reliably to its system, as proposed within the application, the Cooperative will provide requesting Member with an interconnection agreement specific to applicant's generating facility. Member shall be advised to return a member-signed copy of the interconnection agreement to the Cooperative within 30 business days.

The Cooperative shall approve the interconnection request upon completion of the following: (i) a system impact study which determines that the generation facility causes reliability reductions to other Cooperative members, impermissible voltage conditions, objectionable harmonics or other undesirable impacts upon Cooperative's system, (ii) a successful field inspection and testing of the generating facilities which provides Cooperative with confirmation that the system is operating as designed, and (iii) a fully executed distributed generation interconnection agreement.

Should applicant fail to provide Cooperative with a member-signed interconnection agreement within 30 business days after receipt of such document from the Cooperative, the interconnection request may be deemed withdrawn unless the applicant requests in writing to have the deadline extended. The request for extension shall not be unreasonably denied by the Cooperative.

Section 7. Insurance and Indemnification.

Throughout the term of any distributed generation interconnection agreement between the Cooperative and the Member, the Member shall carry a liability insurance policy issued by a licensed insurance carrier with an A. M. Best rating of B+ or better that provides protection against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the member's ownership and/or operation of the distributed generation facility under this agreement. The limits of such policy shall be at least \$1,000,000 per occurrence. The member shall provide a certificate of insurance prior to connection of the Member's facility to the Cooperative's system. A current certificate of insurance shall be provided to Cooperative by Member each year thereafter, at least 30 days prior to the expiration of the term of insurance shown within the prior certificate. All such insurance shall clearly indicate the policy expiration date. Policies written for generating facilities with a Nameplate Capacity of over 25kW shall also contain a waiver of subrogation against the Cooperative for all losses covered by such insurance, and the Member waives all claims against the Cooperative for such covered losses.

The Member shall indemnify the Cooperative, its officers, directors, agents, and employees against all loss, damage, expense and liability to any and all persons, including members, for injury to or death of persons or injury to property, including but not limited to consequential damages, interest, punitive damages, member's fees, court costs and reasonable attorney's fees, proximately caused by the indemnifying party's construction, ownership, interconnection, operation, or maintenance of, or by failure of, any of such party's works or facilities used in connection with the operation of the distributed generation facility.

Section 8. Miscellaneous Requirements.

- A. The Cooperative shall be reimbursed for all costs of interconnection, including all carrying costs, incurred by the cooperative in connecting the Member's generation facility to the Cooperative's system.
- B. The Cooperative shall have complete and unobstructed access to the Member's distributed generation facility and interconnection equipment at all times to monitor operation of the Member's equipment and cooperative-supplied service equipment connected to such system, or to disconnect the Facility if it is not in compliance with the requirements of IEEE 1547 and the non-compliance adversely affects the safety or reliability of the electric system. The Cooperative shall provide reasonable notice to the Member prior to disconnection of the facility whenever possible.
- C. The Cooperative shall have the right to inspect and approve all plans for parallel generation systems and the interconnection systems prior to initial operation or subsequent operation following any modifications thereto.
- D. The Member shall make any necessary changes or adjustments to the generating facilities being operated in parallel to eliminate interference on the Cooperative's system.
- E. The Member shall not energize the Cooperative's system during any period of utility service interruption (ie: a planned or unplanned outage). The Member's equipment must contain a disconnect device for which the Cooperative has unfettered access and which the Cooperative can lock in an open position to disconnect the Member's generating facility from the Cooperative's system.
- F. The Cooperative may annually inspect and/or test the Member's generation facility to ensure it is not energizing the Cooperative's electric system during outages. The generation-owning member shall bear the cost of the annual inspection and/or test, when so required by Cooperative.
- G. Electric generation facilities may be disconnected by the Cooperative from its system whenever, in the sole opinion of the Cooperative, such action is required for reasons of safety or due to interference with service to other members. The facility shall also be subject to the Cooperative's requirements for maintaining voltage standards of output and the production of reactive power.
- H. Phasing, frequency and voltage of the member's interconnected generation shall be compatible with that provided by the Cooperative.
- I. As it relates to a Member's generating facility, the Member shall bear all costs of interconnection including initial and future transmission, distribution, metering, service and other Facility costs necessary to provide for the ongoing interconnected and parallel operation of the generating facility with the Cooperative's system.
- J. Any auxiliary or reserve power service required by the Member must be arranged in

accordance with the terms of the Cooperative's applicable policies and/or rate schedule(s) as modified from time to time.

- K. In the event of a dispute, either party shall provide the other Party with a written Notice of Dispute describing in detail the nature of the dispute. If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may request assistance from a reputable dispute resolution service for assistance in resolving the dispute. The service will select an appropriate dispute resolution venue, (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. Each party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties utilized in the attempt to resolve the dispute. If neither party elects to seek assistance from a dispute resolution service, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this policy.

ATTACHMENT A

ENERSTAR ELECTRIC COOPERATIVE

Application for Interconnection of Member-Owned Generation

This application should be completed and returned to the Cooperative Member Service representative in order to begin processing the request. Reference Member Policy: Interconnect and Parallel Operation of Distributed Generation for additional information.

INFORMATION: This application is used by the Cooperative to determine the required equipment configuration for the Member interface. Every effort should be made to supply as much information as possible.

PART 1: OWNER/APPLICANT INFORMATION

Owner/Member

Name: _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip: _____

Phone: _____ Representative: _____

Email: _____ Fax: _____

PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Company: _____ License/Registration Number _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip: _____

Phone: _____ Representative: _____

Email: _____ Fax: _____

ELECTRICAL CONTRACTOR (as applicable)

Company: _____ License/Registration Number _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip: _____

Phone: _____ Representative: _____

Email: _____ Fax: _____

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TYPE OF GENERATOR

- Photovoltaic Wind Microturbine
 Diesel Engine Combustion Turbine
 Gas Engine Other _____

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ESTIMATED LOAD, GENERATOR RATING, AND MODE OF OPERATION INFORMATION

The following information is necessary to help properly design the Cooperative member interconnection. This information is not intended as a commitment or contract for billing purposes.

Total Site Load _____ (kW) DC
Residential _____ Commercial _____ Industrial _____
Generator Rating _____ (kW) AC Number of Panels _____

Mode of Operation

Isolated _____ Paralleling _____ Power Export _____

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DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Give a general description of the proposed installation, including a detailed description of its planned location, the date you plan to operate the generator, the frequency with which you plan to operate it and whether you plan to operate it during on- or off- peak hours.

PART 2
(Complete all applicable items. Copy this page as required for additional generators.)
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SYNCHRONOUS GENERATOR DATA

Unit Number: _____ Total number of units with listed specifications on site: _____
Manufacturer: _____
Type: _____ Date of manufacture: _____
Serial Number (each): _____
Phases: Single Three R.P.M.: _____ Frequency (Hz): _____
Rated Output (for one unit): _____ Kilowatt _____ Kilovolt-Ampere
Rated Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____
Field Volts: _____ Field Amps: _____ Motoring power (kW): _____
Synchronous Reactance (Xd): _____ % on _____ KVA base
Transient Reactance (X'd): _____ % on _____ KVA base
Subtransient Reactance (X'd); _____ % on _____ KVA base
Negative Sequence Reactance (Xs): _____ % on _____ KVA base
Zero Sequence Reactance (Xo): _____ % on _____ KVA base
Neutral Grounding Resistor (if applicable): _____

I₂²t or K (heating time constant): _____
Additional information: _____

INDUCTION GENERATOR DATA

Rotor Resistance (Rr): _____ ohms Stator Resistance (Rs): _____ ohms
Rotor Reactance (Xr): _____ ohms Stator Reactance (Xs): _____ ohms
Magnetizing Reactance (Xm): _____ ohms Short Circuit Reactance (Xd''): _____ ohms
Design letter: _____ Frame Size: _____
Exciting Current: _____ Temp Rise (deg C°): _____
Reactive Power Required: _____ Vars (no load), _____ Vars (full load)
Additional information: _____

PRIME MOVER (Complete all applicable items)

Unit Number: _____ Type: _____
Manufacturer: _____
Serial Number: _____ Date of manufacture: _____
H.P. Rated: _____ H.P. Max.: _____ Inertia Constant: _____ lb.-ft.²
Energy Source (hydro, steam, wind, etc.) _____

GENERATOR TRANSFORMER (Complete all applicable items)

TRANSFORMER (between generator and utility system)
Generator unit number: _____ Date of manufacturer: _____
Manufacturer: _____
Serial Number: _____
High Voltage: _____ KV, Connection: delta wye, Neutral solidly grounded? _____
Low Voltage: _____ KV, Connection: delta wye, Neutral solidly g rounded? _____
Transformer Impedance(Z): _____ % on _____ KVA base.
Transformer Resistance (R): _____ % on _____ KVA base.
Transformer Reactance (X): _____ % on _____ KVA base.
Neutral Grounding Resistor (if applicable): _____

INVERTER DATA (if applicable)

Manufacturer: _____ Model: _____
Rated Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____

Inverter Type (ferroresonant, step, pulse-width modulation, etc): _____

Type commutation: forced line

Harmonic Distortion: Maximum Single Harmonic (%) _____

Maximum Total Harmonic (%) _____

Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

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POWER CIRCUIT BREAKER (if applicable)

Manufacturer: _____ Model: _____

Rated Voltage (*kilovolts*): _____ Rated ampacity (*Amperes*) _____

Interrupting rating (Amperes): _____ *BIL Rating*: _____

Interrupting medium / insulating medium (ex. Vacuum, gas, oil) _____ / _____

Control Voltage (Closing): _____ (Volts) AC DC

Control Voltage (Tripping): _____ (Volts) AC DC Battery Charged Capacitor

Close energy: Spring Motor Hydraulic Pneumatic Other: _____

Trip energy: Spring Motor Hydraulic Pneumatic Other: _____

Bushing Current Transformers: _____ (Max. ratio) Relay Accuracy Class: _____

Multi ratio? _____ **No** _____ **Yes: (Available taps)** _____

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ADDITIONAL INFORMATION

In addition to the items listed above, please attach a detailed one-line diagram of the proposed facility, all applicable elementary diagrams, major equipment, (generators, transformers, inverters, circuit breakers, protective relays, etc.) specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection. Also describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.), and its address or grid coordinates.

END OF PART 2 _____

SIGN OFF AREA

The Member agrees to provide the Cooperative with any additional information required to complete the interconnection. The customer shall operate his equipment within the guidelines set forth by the cooperative.

Applicant Date _____

ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact: _____

Title: _____

Address: _____

Phone: _____

Fax: _____

e-mail: _____



ATTACHMENT B

**AGREEMENT FOR INTERCONNECTION AND PARALLEL
OPERATION OF DISTRIBUTED GENERATION**

DATE OF AGREEMENT: _____

EnerStar Electric Cooperative hereinafter “Cooperative”
11597 IL Hwy 1
Paris, IL 61944

_____ hereinafter “Member”

This Agreement for Interconnection and Parallel Operation of Distributed Generation (hereinafter “Agreement”) is made and entered the date indicated above between **ENERSTAR ELECTRIC COOPERATIVE**, (hereinafter referred to as “Cooperative”), a not-for-profit corporation organized under the laws of the State of Illinois, and _____, (hereinafter referred to as “Member”), a member/owner of the cooperative presently receiving electric service from Cooperative, each hereinafter sometimes referred to individually as “Party” or both referred to collectively as the “Parties”.

In consideration of the mutual covenants set forth herein, and other good and valuable consideration, the sufficiency and receipt thereof is hereby acknowledged, the Parties agree as follows:

1. **Scope of Agreement** – This Agreement addresses the conditions under which the Cooperative and Member agree that a generating facility or facilities (herein “distributed generation” and more particularly described in Exhibit A) owned and/or operated by Member with a nameplate capacity of 25 kW or less, can be interconnected at 120/240(V) or less (collectively hereinafter sometimes referred to as the “Facility”) to the Cooperative’s electric power distribution system (hereinafter sometimes referred to as the “System”). When utilized as a means of providing electric energy to Member and/or the Cooperative, the term Facility shall also include batteries. This Agreement shall not subjugate the need for Member to have effected a separate membership agreement for electric service prior to interconnection of Member’s Facility. Further, Member agrees that terms and conditions herein shall be in addition to the Cooperative’s rules, policies, regulations, by-laws and rates (hereinafter collectively “Requirements”).

2. **Establishment of Point of Interconnection** –Cooperative and Member agree to interconnect the Facilities at the location(s) specified in Exhibit A in accordance with the terms of the Cooperative’s policy on Interconnection and Parallel Operation of Distributed Generation and the Institute of Electrical and Electronic Engineers (IEEE) Standards 1547 and 1547.1, as well as UL Standard 1741-SA, all of which shall be deemed a part of, but not any limitation of, the Requirements.

3. **Responsibilities of Cooperative and Member for Installation, Operation and Maintenance of Facilities** – Member shall, at Member’s cost and expense, install, operate, maintain, repair, and inspect, and be fully responsible for its facilities and interconnection facilities, unless otherwise specified on Exhibit A. Member shall conduct operations of its facilities and interconnection facilities in compliance with all aspects of the Cooperative’s requirements and in accordance with industry standards and prudent engineering practice. Maintenance of facilities and interconnection facilities shall be performed in accordance with the applicable manufacturers’ recommended maintenance schedule. Member agrees to cause its facilities and interconnection facilities to be constructed in accordance with Cooperative’s Interconnection and Parallel Operation of Distributed Generation Policy. The Cooperative shall have the right to inspect and potentially require changes prior to interconnecting Member’s generating facilities to Cooperative’s system. Phase, frequency and voltage of the Member’s interconnected generation shall be compatible with that provided by the Cooperative.

Member shall comply with all applicable Federal, State and local laws, regulations, zoning codes, building codes, safety rules and environmental restrictions applicable to the design, installation, operation and maintenance of its facilities and interconnection facilities.

The Cooperative will notify Member if there is evidence that the facilities’ or interconnection facilities’ operation causes disturbance, disruption or deterioration of service to any other member(s) served from the System or if the facilities’ or interconnection facilities’ operation causes damage to the System. If this condition persists, the Cooperative shall have the right to disconnect Member from the System. Member will notify the Cooperative of any emergency or hazardous condition or occurrence related to Member’s Facility which could affect safe operation of the System.

4. **Operator in Charge** – Member shall provide a phone number and address of an individual (contact person) who is knowledgeable of this Agreement, familiar with the installation, maintenance and operation of Member’s generation facilities, and has the authority to disconnect those generation facilities from the System in the event the Cooperative so requests such action.

5. **No Power Sales to Cooperative** - Interconnection of the Facilities with the System does not grant Member the right to export power nor does it constitute an agreement by the Cooperative to purchase or wheel power for sale to any other party. Purchase of excess energy generated by Member-owned generation facilities is governed by the Cooperative’s Member Purchases and Sales of Electric Services Policy.

6. Limitation of Liability and Indemnification

a. Notwithstanding any other provision in this Agreement, with respect to the Cooperative's provision of electric service to Member and the services provided by the Cooperative pursuant to this Agreement, Cooperative's liability to Member shall be limited as set forth in the Cooperative's rules, bylaws, policies, contracts, and terms and conditions for electric service, which are incorporated herein by reference, and in no event shall the Cooperative be liable for loss of profit, loss of operation time, or loss of or reduction in use of any facilities or any portion thereof, increased expense of construction, operation or maintenance, or for any special, indirect, incidental, or consequential damages resulting from the construction, operation or maintenance of the member's facility.

b. For the purposes of this Agreement, a Force Majeure event is any event beyond the reasonable control of the affected party that the affected party is unable to prevent or provide against by exercising reasonable diligence; this includes but is not limited to public disorder, rebellion or insurrection, floods, hurricanes, earthquakes, lightning, storms or other natural calamities, explosions or fires, strikes, work stoppages or labor disputes, embargoes, and sabotage. If a Force Majeure event prevents a party from fulfilling any obligations under this Agreement, such party will promptly notify the other party in writing and will keep the other party informed on a continuing basis as to the scope and duration of the Force Majeure event. The affected party will specify the circumstances of the Force Majeure event, its expected duration and the steps that the affected party is taking to mitigate the effect of the event on its performance. The affected party will be entitled to suspend or modify its performance of obligations under this Agreement but will use reasonable efforts to resume its performance as soon as possible.

c. Member shall be responsible for the safe installation, maintenance, repair and condition of lines, wires, switches, or other equipment or property on its side of the point of interconnection. The Cooperative does not assume any responsibility for member's lines, wires, switches, or other equipment or property. Member assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith at or beyond the point of interconnection.

7. Testing and Testing Records – Member shall perform or cause to be performed such tests as the Cooperative may reasonably require and shall provide to the Cooperative all records of testing. Testing of protection systems shall comply with existing industry standards and practices. These records shall include testing at the start of operation and periodic testing thereafter. Factory testing of pre-packaged interconnection facilities and the protective systems of small units may be acceptable in the absence of reasonable means for additional testing. In the case of a factory test, Member shall provide a written description and certification by the factory of the test, the test results, and the qualification of any independent testing laboratory. In addition, Member shall obtain approval by the Cooperative of the settings of the equipment being installed prior to operation.

8. Right of Access, Equipment Installation, Removal & Inspection – The Cooperative shall have complete and unobstructed access to the member's small generation facility and interconnection equipment at all times to monitor operation of the member's equipment and cooperative-supplied service equipment connected to such system, or to disconnect, without prior

notice to the member, the member's equipment from the cooperative's distribution system, for good cause, including, but not limited to such equipment not being in compliance with the requirements of IEEE 1547 and the non-compliance adversely affects the safety or reliability of the Cooperative's system.

The Cooperative shall also have access to Member's premises and to operational records for any reasonable purpose in connection with the interconnection described in this Agreement, the determination of compliance with the Requirements, or the provision of service to its members.

9. **Disconnection of Facilities** – Member retains the option to disconnect its facilities from the System, provided that Member notifies the Cooperative of the member's intent to disconnect by giving the Cooperative at least thirty (30) days' prior written notice. Such disconnection shall not be a termination of this Agreement unless Member exercises rights under Section 12 that do not lead to a resolution of the issue.

Member shall disconnect Facilities from the System upon the effective date of any termination resulting from and required by actions under Section 12.

The Cooperative may disconnect the electric generation facilities from its System whenever, in the sole opinion of the Cooperative, such action is required by an emergency, for reasons of safety or due to interference with service to other members, or for failure to produce timely proof of insurance as required by this Agreement. The Facility shall also be subject to the Cooperative's requirements for maintaining voltage standards of output and the production of reactive power.

10. **Metering** – The Cooperative shall be reimbursed for all costs of interconnection, including all carrying and metering costs, incurred by the Cooperative in connecting the Member generation facility to the distribution system. Metering shall meet Cooperative's accuracy standards required for equivalent electrical services and can be accomplished with standard meters or any devices that meet data collection and accuracy requirements.

11. **Insurance** – Throughout the term of this agreement, Member shall carry a liability insurance policy issued by a licensed insurance carrier with an A. M. Best rating of B+ or better that provides protection against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the member's ownership and/or operation of the distributed generation facility under this agreement. The limits of such policy for a generation facility shall be at least \$1,000,000 per occurrence. The member shall provide a certificate of insurance to the Cooperative prior to connection of the member's facility to the Cooperative's system. A current certificate of insurance shall be provided by Member each year thereafter, at least 30 days prior to the expiration of the term of insurance shown within the prior certificate. All such insurance shall clearly indicate the policy expiration date and shall contain a waiver of subrogation against the Cooperative for all losses covered by such insurance and the Member waives all claims against the Cooperative for such covered losses.

The Member, whether commercially insured or self insured, agrees to indemnify the Cooperative, its officers, directors, agents, and employees against all loss, damage, expense and liability to any

and all persons, including members, for injury to or death of persons or injury to property, including but not limited to consequential damages, interest, punitive damages, member's fees, court costs and reasonable attorney's fees, proximately caused by the indemnifying party's construction, ownership, interconnection, operation, or maintenance of, or by failure of, any of such member's works or facilities used in connection with the operation of the generating facility.

12. **Annual Inspection** - The Cooperative may annually inspect and/or test the member's distributed generation facility to ensure it is not energizing the cooperative's electric system grid during outages. The member shall pay the cost of the annual inspection and/or test.

13. **Effective Term and Termination Rights** – This Agreement becomes effective when executed by both Parties and shall continue in effect until terminated. This Agreement may be terminated as follows: (a) Member may terminate this Agreement at any time by giving the Cooperative at least sixty (60) days' written notice; (b) Cooperative may terminate upon failure by Member to generate energy from the Facilities within six (6) months after completion of the interconnection; (c) either Party may terminate by giving the other Party at least thirty (30) days prior written notice that the other Party is in default of any of the terms and conditions of the Agreement or the Rules or any rate schedule, regulation, contract, or policy of the Cooperative, so long as the notice specifies the basis for termination and there is opportunity to cure the default; (d) in the event that there is a material change in an applicable law, or any change in policy or procedure pertaining to distributed generation by the Cooperative's wholesale electric supplier or requirement of any transmission utility, independent system operator or regional transmission organization having responsibility, control or authority over the operation of any part of the System, Cooperative may terminate by giving Member at least sixty (60) days' notice, or such shorter period of time as may be necessary to comply with any such change in law, policy or procedure; (e) Cooperative may terminate this Agreement upon three (3) business days' notice in the event Member ceases to receive electric service from Cooperative or is in default of terms or conditions for electric service; in the event that a Party (i) makes a general assignment or arrangement for the benefit of creditors; (ii) commences an action or proceeding under any bankruptcy, insolvency or similar law for the protection of debtors or creditors, or has commenced against it any such action or proceeding which is not withdrawn or dismissed within thirty (30) days; (iii) otherwise is adjudicated a debtor in bankruptcy or insolvent; (iv) is unable (or admits in writing its inability) generally to pay its debts as they become due; (v) is dissolved or has a resolution passed for its winding-up or liquidation (other than pursuant to a consolidation, acquisition or merger); (vi) seeks or becomes subject to the appointment of an administrator, assignee, conservator, receiver, trustee or similar official for substantially all of its assets; (vii) has a secured party take possession of all, or substantially all, of its assets or has all, or has substantially all of its assets become subject to an attachment, execution, levy, sequestration or other legal process which is not dismissed discharged, stayed or restrained within thirty (30) days; (viii) causes or is subject to any event that has an effect analogous to any of the events enumerated in clauses (i) through (vii); or (ix) takes any action in furtherance of, or indicates its consent to, approval of, or acquiescence in any of the foregoing acts or events; then, in such event, this Agreement shall terminate automatically without notice and without any other action by either Party.

14. **Compliance with Laws, Rules and Regulations**– Member shall be responsible for

complying with all federal, state and local laws. In the event Member's facilities, interconnection or disposition of electricity generated by the distributed generation are, or become, subject to Federal, State or local regulation, Member is, and shall be, responsible for regulatory compliance. The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the Requirements, including, without limitation, the Cooperative's policy on Interconnection and Parallel Operation of Distributed Generation. The Cooperative reserves the right to change the Requirements at any time.

15. **Severability** – If any portion or provision of this Agreement is held or adjudged for any reason to be invalid or illegal or unenforceable by any court of competent jurisdiction, such portion shall be deemed separate and independent, and the remainder of this Agreement, shall remain in full force and effect.

16. **Amendment** – This Agreement may be amended only upon mutual agreement of the Parties, which amendment will not be effective until reduced to writing and executed by the Parties.

17. **Entirety of Agreement** – This Agreement, including the requirements contained in the attached Exhibits and Facilities Schedules, which are expressly made a part hereof for all purposes, constitutes the entire agreement and understanding between the Parties with regard to the interconnection of the facilities of the Parties at the points of interconnection expressly provided for in this Agreement. The Parties are not bound by or liable for any statement, representation, promise, inducement, understanding, or undertaking of any kind or nature (whether written or oral) with regard to the subject matter hereof not set forth or provided for herein or in Member's application, or other written information provided by the Member in compliance with these requirements.

18. **Assignment** – This Agreement may be assigned to a party receiving electric service from the Cooperative at the site of the Facilities only upon the express written consent of the Cooperative. The assignee will be responsible for the proper operation and maintenance of the Facilities, and must agree in writing to be subject to all provisions of this Agreement. Cooperative may assign the Agreement to another entity without the approval of Member. Required consents shall not be withheld unreasonably.

19. **Notices** – Notices given under this Agreement are deemed to have been duly delivered once received by United States email, return receipt requested, postage prepaid, to:

Attention: President and CEO
EnerStar Electric Cooperative
11597 IL Hwy 1
Paris, IL 61944
217-466-7600

Member _____
Name _____
Address _____
City, State, Zip _____
Phone _____

The above-listed names, titles, and addresses of either Party may be changed by written notification to the other.

20. **Invoicing and Payment** – Invoicing and payment terms for services associated with this Agreement shall be consistent with applicable cooperative policies.

21. **No PURPA Interconnection** – The parties agree that the member’s facility is not a qualifying small power production facility or qualifying cogeneration facility as defined in the Public Utility Regulatory Policies Act of 1978 and that nothing herein confers any rights or obligations on either party by application of that Act.

22. **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 herein assumed are solely for the use and benefit of the Parties.

23. **Waiver** - The failure of either party to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered to waive the obligations, rights or duties of the provisions in this Agreement.

24. **Governing Law and Jurisdiction** – It is agreed that this Agreement shall be construed and governed in accordance with the laws of the State of Illinois and that the circuit court of Edgar County has jurisdiction on all matters relating to the enforcement of this Agreement.

25. **Disputes.** In the event of a dispute in relation to this Agreement or any of the matters referred to in this Agreement, either party shall provide the other Party with a written Notice of Dispute describing in detail the nature of the dispute. If the dispute has not been resolved within two Business Days after receipt of the Notice (“Initial Resolution Period”), either Party may request assistance from a reputable dispute resolution service for assistance in resolving the dispute. The service will select an appropriate dispute resolution venue, (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. Each party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties utilized in the attempt to resolve the dispute. If neither party elects to seek assistance from a dispute resolution service within thirty (30) days of the end of the Initial Resolution Period (“Dispute Resolution Election Period”), or if the attempted dispute resolution fails to achieve a resolution within ninety (90) days of the end of the Dispute Resolution Election Period, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement and the rules and policies of the Cooperative. Nothing in this paragraph shall limit the rights of the Cooperative to disconnect the Facility from the System for safety or other reasons permitted in this Agreement.

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

ENERSTAR ELECTRIC COOPERATIVE

MEMBER

BY: _____

TITLE: _____

EXHIBIT A

**DESCRIPTION OF FACILITY SCHEDULE AND
POINT OF INTERCONNECTION**

Facility Schedule No.

Point of Interconnection

Member will, at Member's own cost and expense, operate, maintain, repair, and inspect, and shall be fully responsible for its Facilities, unless otherwise specified herein.

FACILITIES SCHEDULE NO.

1. Name:

2. Facilities location:

3. Delivery voltage:

4. Metering (voltage, location, losses adjustment due to metering location, and other:

5. Normal Operation of Interconnection:

6. One line diagram attached (check one):/ _____ Yes / _____ No

7. Facilities to be furnished by Cooperative:

8. Facilities to be furnished by Consumer:

9. Cost Responsibility:

10. Control area interchange point (check one): / _____ Yes / _____ No

11. Supplemental terms and conditions attached (check one): / _____ Yes / _____ No

12. Cooperative requirements for DG interconnection attached (check one): /__ Yes /__ No

ENERSTAR ELECTRIC COOPERATIVE

MEMBER

BY: _____

TITLE: _____

DATE: _____

DATE: _____