

INTERCONNECTION AND PARALLEL OPERATION OF DISTRIBUTED GENERATION

I. OBJECTIVE

To establish safety, quality, reliability and economic criteria for interconnection and parallel operation of distributed generation designed primarily, but not exclusively, to offset the Member's electrical requirements while honoring the Cooperative's objective to provide equitably priced electricity to all Members on a cooperative basis.

II. DEFINITIONS

1. **DISTRIBUTED GENERATION** is defined as any generation built in close proximity to the generating Member's load regardless of generation capacity or energy source of such generation and includes but is not limited to:
 - A. small scale environmentally friendly generators such as photo voltaic (PV), fuel cells and wind turbines;
 - B. micro turbines 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. commercial emergency and standby diesel generators installed, for example, in hospitals, hotels and farms;
 - E. Energy storages such as Electric Vehicles, stand alone batteries and other devices;
2. **Eligible Renewable Electrical Generating Facility (EREGF)** means a generator of 25 kW (Alternating Current, AC) or less powered by solar electric energy, wind, dedicated crops grown for electricity generation, anaerobic digestion of livestock or food processing waste, fuel cells or micro turbines powered by renewable fuels, or hydroelectric energy.
3. **IEEE STANDARD 1547** – The Institute of Electrical and Electronic Engineers, Inc. (IEEE) Standard 1547 (2003) “Standard for Interconnecting Distributed Resources with Electric Power Systems”, as amended and supplemented, at the time the interconnection request is submitted.
4. **IEEE STANDARD 1547.1** – The IEEE Standard 1547.1 (2005) “Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems”, as amended and supplemented, at the time the interconnection request is submitted.
5. **NAMEPLATE CAPACITY** – The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions

designated by the manufacturer and is usually indicated on a nameplate physically attached to the power production equipment.

6. **POINT OF INTERCONNECTION**—The Point of Interconnection shall be the physical location where Cooperative and Member facilities are interconnected.
7. **SMALL GENERATOR FACILITY** – The equipment used by an interconnection customer to generate, or store electricity that operates in parallel with the electric distribution system having a nameplate capacity of not more than 25 kW AC. 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. These facilities have been approved by a nationally recognized testing laboratory or must have been approved by the Cooperative under a study process and qualify for expedited review.
8. **UL STANDARD 1741** – Underwriters Laboratories’ standard titled “Inverters Converters, and Controllers for Use in Independent Power Systems”, November 7, 2005 edition, as amended and supplemented, at the time the interconnection request is submitted.
9. **WITNESS TEST** – For lab certified or field approved equipment, verification (either by an on-site observation or review of documents) by the Cooperative 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 or field approved, the witness test shall also include the verification by the Cooperative of the on-site design tests as required by IEEE Standard 1547 Section 5.1 and verification by the Cooperative of production tests required by IEEE Standard 1547 Section 5.2. All tests verified by the Cooperative are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

III. APPLICABILITY

This interconnection policy applies to cooperative Members proposing to install and interconnect generator facilities that:

- A. Are not subject to the interconnection requirements of MISO/PJM; and
- B. Are designed to operate in parallel with the electric distribution system.

IV. INTERCONNECTION REQUESTS

- A. Members seeking to interconnect a generator facility shall submit an interconnection request using the form attached hereto as Attachment A. The request may be eligible for expedited interconnection review if the request is for a Eligible Renewable Electrical Generating Facility (EREGF) using lab certified or field approved interconnection equipment, and where the aggregate distributed generation, including

that of the applicant, on the affected distribution circuit is less than 10% of the minimum load on the circuit.

- 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 Inverters, Converters, and Controllers for Use in Independent Power Systems and NFPA 70 National Electrical Code.
- C. Interconnection equipment shall be deemed to be field approved if within the previous 36 months of the date of the interconnection request, it has been previously approved for use with the proposed Small Generator Facility in a materially identical system application, and the prior approval process included a successful witness test.
- D. The Member must submit to the Cooperative plans of the proposed installation and must obtain approval for the installation. This approval process will include a review by the Cooperative of the effect of the proposed generation on the Cooperative's distribution system, including both the protective scheme of the proposed generator and that of the Cooperative. The Member requesting interconnection shall pay the cost of this review. No installation will be permitted that reduces reliability to other Members or causes voltage conditions on the system to be outside of the limits of ANSI C84.1 Range A. No installation will be permitted that is expected to produce objectionable harmonics on the system. Any mitigation required to resolve any reliability; voltage or harmonic problems created by a Member-owned generator will be paid for by the Member.
- E. For generating facilities with nameplate ratings of more than 25 kW, the Cooperative shall apply, to the extent practicable and as determined to be in the best interests of the Cooperative, the procedures contained in the Small Generator Interconnection Procedures (SGIP) for generating facilities no larger than 20 MW as developed by the Federal Energy Regulatory Commission (FERC) and the Illinois Commerce Commission regulations governing interconnection standards.

V. NORMAL REVIEW

- A. The Cooperative shall review the application and evaluate the potential for adverse system impacts due to the installation of Distributed Generation. Such impacts may include, but not be limited to, having an aggregate distributed generation on the affected distribution circuit of more than 10% of the minimum load on the circuit.
- B. Any cost for the review or construction of facilities on the Cooperative's system or the transmission provider's system, to accommodate distributed generation shall be paid by the Member.

- C. The Cooperative shall, within Thirty (30) business days after receipt of an interconnection request, attached hereto as Attachment A, shall inform the applicant that the interconnection request is incomplete and specify what materials are missing, or inform the applicant that the interconnection request is complete, and provide the Member with an Interconnection Study Agreement (Attachment B).
- D. The Cooperative shall, within one hundred and twenty business (120) days after receipt of a fully completed and documented copy of both Attachment A and Attachment B, complete a facilities study that determines the extent of modifications necessary to connect the proposed distributed generation equipment safely and reliably to the Cooperative's distribution system, or provide an explanation of the difficulties being experienced and an estimation of when the study results will be made available.
- E. Under the Normal Review process for Distributed Generation, the Member shall provide a \$5000 deposit when requesting an interconnection. The Member shall be responsible for all Cooperative costs of interconnection including all direct and indirect costs for the initial and future transmission, distribution, metering, permitting, service and other facilities costs necessary to allow interconnected operations with the Cooperative. To the extent that a transmission provider is involved in this decision-making process, additional deposits may be required as well as additional time to complete the proposed interconnection. After the installation is completed or the request rejected or withdrawn, any unspent amount from the deposit will be refunded. If additional cost has been incurred and not covered through initial and subsequent deposits, that balance will be due from the Member within 30 days of invoice.

VI. EXPEDITED REVIEW

- A. The Cooperative shall review the application and evaluate the potential for adverse system impacts due to the installation of EREGF. Except as provided in Paragraph VI (E) below, any cost for the review or construction of facilities on the Cooperative's system to accommodate the EREGF shall be paid by the Member.
- B. The Cooperative shall, within Thirty (30) business days after receipt of an interconnection request, attached hereto as Attachment A, shall inform the applicant that the interconnection request is incomplete and specify what materials are missing, or inform the applicant that the interconnection request is complete.
- C. The Cooperative shall, within thirty (30) business days after the receipt of a fully completed and documented copy of Attachment A complete a facilities study that determines the extent of modifications necessary to connect the proposed EREGF safely and reliably to the Cooperative's distribution system, or provide an explanation of the difficulties being experienced and an estimation of when the study results will be made available.
- D. Unless the Cooperative determines and demonstrates that a EREGF cannot be interconnected safely or reliably to its system and provides a letter to the applicant

explaining its reasons for denying an interconnection request, the Cooperative shall approve the interconnection request subject to the following conditions:

1. The EREGF obtaining approval by local or municipal electric code officials with jurisdiction over the interconnections, if any; and
 2. The EREGF obtaining and providing to the Cooperative a certificate of completion if any are required by local inspecting authorities; and
 3. The Witness Test has been successfully completed or waived by the Cooperative; and
 4. The applicant has signed an Agreement for Interconnection and Parallel Operation of Distributed Generation, in the form attached hereto as Attachment C. When an applicant does not sign the agreement within 30 business days after receipt from the Cooperative, the interconnection request may be deemed withdrawn unless the applicant requests to have the deadline extended. The request for extension shall not be unreasonably denied by the Cooperative.
- E. For an EREGF, the Member shall provide a \$500 application fee when requesting an interconnection. The Member will be responsible for all cooperative costs associated with system modifications for interconnecting the generating facility to the Cooperatives distribution system. Costs in excess of \$500 for an EREGF shall be born by the Cooperative, except in the case where the facility fails initial testing and/or requires more than one trip to commission, as well as any modifications to the Cooperatives distribution facilities.
- F. When an EREGF is not approved under the expedited review procedure, the applicant may submit a new interconnection request for consideration under the Normal Review procedures set forth in Paragraph V hereof.

VII. MISCELLANEOUS REQUIREMENTS

- A. 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 modifications.
- B. The Cooperative and its representatives shall have free access to the Member's generation facility and interconnection equipment at all times to monitor and to inspect the operation of the Member's equipment from time to time and to disconnect if the Distributed Generation or any ancillary equipment associated with the operation thereof is not in compliance with the requirements of IEEE 1547 and the noncompliance adversely affects the safety, quality or reliability of the electric system. The Cooperative shall provide reasonable notice to the Member prior to disconnection of the facility if possible.

- C. The Member shall make any necessary changes or adjustments to the additional facilities being operated in parallel to eliminate interference on the Cooperative's distribution system.
- D. The Member shall not energize or attempt to re-energize the Distributed Generation at any time during any period of Cooperative utility service interruption. The Member's equipment must contain a disconnect device located at the Point of Interconnection to which the Cooperative has access and which the Cooperative can lock in an open position to disconnect the Member's Distributed Generation from the Cooperative's electric delivery system.
- E. Electric generation facilities may be disconnected by the Cooperative 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. The facility shall also be subject to the Cooperative's requirements for maintaining voltage standards of output and the production of reactive power.
- F. Phasing, frequency and voltage of the Member's interconnected generation shall be compatible with that provided by the Cooperative.
- G. Any auxiliary or reserve power service required by the Member must be arranged in accordance with the terms of the Cooperatives or the Cooperatives power supplier's applicable policies/rates as modified from time to time.

VIII. INSURANCE REQUIREMENTS AND INDEMNIFICATION

- A. Throughout the term of this agreement, 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 for a generation facility in excess of a rated nameplate of 25 kW AC or more shall be at least \$1,000,000 per occurrence and the Cooperative shall be a named insured thereon. The limits of such policy for a generation facility less than a rated nameplate of 25 kW AC shall be at least \$1,000,000 per occurrence but the Cooperative need not be a named insured thereon. The Member shall provide a certificate of insurance containing a minimum 30 day notice of cancellation to the Cooperative prior to connection of the Member's facility to the Cooperative system and thereafter from time to time upon the Cooperative's request therefore.
- B. 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.

- 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 duty of inspecting Member's lines, wires, switches, or other equipment or property and will not be responsible therefore. Member assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith at or beyond the point of interconnection.

IX. APPROVED

June 27, 2008

X. REVISED

March 30, 2020