

BOARD POLICY 307: ATTACHMENT A



Shelby Electric Cooperative

Your Touchstone Energy® Partner



Application for Distributed Generation Project

I, as Requestor, have fully read, understand, and accept all provisions, terms, and conditions set forth in Shelby Electric Cooperative (Cooperative) Board Policy 307 - Interconnection and Parallel Operation of Distributed Generation.

I desire to interconnect electric generating equipment as a Distributed Generation Project (DGP) to the low-voltage premises wiring at my property. I desire to undertake Parallel Operation of this generating equipment with the electric system of the Cooperative as defined in Board Policy 307.

I desire to receive compensation/credit for any over-generation through (please initial one):

_____ the Cooperative's provisions for net metering as defined in Board Policy 308

_____ the Cooperative's provisions for Qualifying Facilities as defined in Board Policy 321 or
Small Distributed Generation Facility under Board Policy 323

I agree to pay the non-refundable **application fee** of \$ _____ to the Cooperative, which is necessary prior to the Cooperative accepting this Application for Distributed Generation.

I agree the Cooperative will evaluate and analyze the impact my DGP may have on (i) the operations of Cooperative electric system and (ii) the quality of electric service provided to the members of the Cooperative. The Cooperative has identified the **deposit for analysis** associated with this Application to be \$ _____. Should a further deposit be required, the Cooperative will notify me. Should deposit dollars remain after the analysis, they will be credited toward any necessary construction costs associated with interconnection of my DGP or returned to me.

I understand that, if there is Cooperative system construction required, a **deposit for construction** will be required before construction required by the Cooperative for the interconnection would begin. Estimated costs of construction required by the Cooperative will be provided after analysis is complete, and I will be required to pay 110% of the estimated costs as a deposit for such construction.

I agree not to undertake Parallel Operation of any electric generating equipment on the low-voltage premises wiring at my service location without an "Authorization to Energize" duly executed by an authorized officer of the Cooperative.

Signed (Requestor)

Date

Account Number

Map Location Number

Distributed Generation Project

General Description and Electrical Characteristics

This application should be completed and returned to the Cooperative Member Services Department in order to begin processing the request.

INFORMATION: This application is used by the Cooperative to determine the required equipment configuration for the Requestor's interconnection. Every effort should be made to supply as much information as possible. The Cooperative reserves the right to request any additional information pertaining to the installation of generation equipment/net metering at any time.

PART 1 (Required to be Completed for All Interconnection Requests)

REQUESTOR/APPLICANT INFORMATION

Requestor Name: _____

Mailing Address: _____

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

Email Address: _____

Phone Number: _____ Fax Number: _____

DISTRIBUTED GENERATION PROJECT(DGP) SITE INFORMATION

Requestor Cooperative Account Number: _____

Cooperative Map Location Number: _____

Physical Address of Site: _____

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

PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Company: _____

Contact Name: _____ License/Registration Number: _____

Mailing Address: _____

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

Email Address: _____

Phone Number: _____ Fax Number: _____

ELECTRICAL CONTRACTOR (as applicable)

Company: _____

Contact Name: _____ License/Registration Number: _____

Mailing Address: _____

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

Email Address: _____

Phone Number: _____ Fax Number: _____

TYPE OF GENERATOR

☐ Photovoltaic ☐ Wind ☐ Microturbine ☐ Diesel Engine ☐ Gas Engine ☐ Combustion Turbine

☐ Battery ☐ Other: _____

CERTIFICATION

For inverter-based installations, is the inverter UL 1741 certified? ☐ Yes ☐ No

If yes, please provide evidence of certification.

ESTIMATED LOAD AND GENERATOR RATING INFORMATION

The following information is necessary to help properly design the Cooperative Interconnection to the Requestor's DGP. This information is not intended as a commitment or contract for billing purposes.

Total Nameplate Rating: _____ kW-AC _____ kW-DC _____ kVAR

Minimum during production hours: _____ Maximum during production hours: _____

Annual Est Generation: _____ (kWh) Net Annual Est Energy Consumption: _____ (kWh)

DESCRIPTION OF PROPOSED DGP INSTALLATION AND OPERATION

Attach a description of the proposed DGP installation, including a detailed description of its planned location, the Point of Interconnection, structure(s) to be served by the generator, and the date you plan to operate the DGP generator.

ADDITIONAL INFORMATION

In addition to the items listed above, please attach a detailed one-line diagram of the proposed DGP and any related 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 DGP's planned operating mode (e.g., combined heat and power, peak shaving, etc.), and its address or grid coordinates.

PART 2 (Required to be Completed for Interconnection Requests Exceeding 10 kW)

(Complete all applicable items. Copy pages as required for additional generators.)

SYNCHRONOUS GENERATOR DATA

Unit Number: _____ Manufacturer: _____
Total number of units with listed specifications on site: _____
Type: _____ Date of manufacture: _____
Serial Number (each): _____
Phases: ☐ Single ☐ Three R.P.M.: _____ Frequency (Hz): _____
Rated Output (for one unit): _____ Kilowatts _____ Kilovolt-Amperes
Rated Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____
Field Volts: Field Amps: Motoring power (kW): _____
Synchronous Reactance (X_d): _____ % on _____ KVA base
Transient Reactance (X'_d): _____ % on _____ KVA base
Subtransient Reactance (X''_d): _____ % on _____ KVA base
Negative Sequence Reactance (X_2): _____ % on _____ KVA base
Zero Sequence Reactance (X_0): _____ % on _____ KVA base
Neutral Grounding Resistor (if applicable): _____

Additional information: _____

INDUCTION GENERATOR DATA

Motoring power: _____ kW Equivalent MVA base: _____ MVA
Rotor Resistance (R_r): _____ ohms Stator Resistance (R_s): _____ ohms
Rotor Reactance (X_r): _____ ohms Stator Reactance (X_s): _____ ohms
Magnetizing Reactance (X_m): _____ ohms Short Circuit Reactance (X_d''): _____ ohms
Design letter: _____ Frame Size: _____
Exciting Current: _____ Temp Rise (deg C°): _____
Reactive Power Required: _____ Vars (no load), _____ Vars (full load)
 $I_2^2 t$ or K (heating time constant): _____
Additional information: _____

PRIME MOVER (Complete all applicable items)

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

GENERATOR TRANSFORMER (between generator and utility system; if supplied by applicant)

Generator unit number: _____ Date of manufacturer: _____
Manufacturer: _____ Serial Number: _____
Size: _____ kVA
High Voltage: _____ KV, Connection: ☐ delta ☐ wye, Neutral solidly grounded? ☐ Y ☐ N
Low Voltage: _____ KV, Connection: ☐ delta ☐ wye, Neutral solidly grounded? ☐ Y ☐ N
Tertiary Delta Winding: Y/N
Transformer Impedance(Z): _____ % on _____ KVA base
Transformer Resistance(R): _____ % on _____ KVA base
Transformer Reactance (X): _____ % on _____ KVA base
Neutral Grounding Resistor (if applicable): _____
Transformer Fuse (if applicable)—Manufacturer: _____ Type: _____ Size: _____ Speed: _____

INVERTER DATA (if applicable)

Type commutation: ☐ self ☐ line
Manufacturer: _____ Model: _____
Rated Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____
Inverter Type (ferroresonant, step, pulse-width modulation, etc): _____

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.

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) _____

PART 3 (Required to be Completed for All Interconnection Requests)

SIGNATURES AND QUEUE DATE

The Requestor agrees to provide the Cooperative with any additional information required to complete the Interconnection. The Requestor shall operate Requestor's DGP and related equipment within all applicable contractual obligations, policies, and guidelines set forth by the Cooperative.

Requestor Date

PART 4

---FOR COOPERATIVE USE ONLY---

Map Location #: _____

Size of Service / Type of Meter: _____

Special Provisions: _____

Requestor Interconnection Application and Confirmation of Payment Received

Application Fee: _____ ☐ paid Analysis Deposit: _____ ☐ paid

Holding Date: _____ Time: _____ a.m./p.m.

Initial (Cooperative Representative): _____

Queue Date: _____

Initial (Cooperative Representative): _____

Return Application to:

Shelby Electric Cooperative
1355 HWY 128, PO Box 560, Shelbyville, IL 62565
217-774-3986 | 800-677-2612

www.shelbyelectric.coop

Annotated copy with Holding Date included to be provided to the Requestor

**SHELBY ELECTRIC COOPERATIVE
BOARD POLICY 307**

**INTERCONNECTION AND PARALLEL OPERATION OF DISTRIBUTED
GENERATION**

I. OBJECTIVE

To define the process for Interconnection with, and Parallel Operation of, a Distributed Generation Project (DGP) on the electrical system of the Cooperative.

II. SCOPE AND APPLICABILITY

This policy applies to Interconnection on the electrical system of the Cooperative of any Distributed Generation Project (DGP) designed for Parallel Operation that meets all applicable electrical codes and standards. This policy is administered in concert with policies of the Cooperative pertaining to Interconnection of and Service to Qualifying Facilities under Public Utility Regulatory Policies Act (PURPA) (Board Policy 321) and Net Metering and Cooperative Credit for Excess Member-Generated Electric Energy (Board Policy 308). This policy does not apply to generation operated in isolation, as is the case for emergency standby generators.

To the extent that requirements and processes of this policy for Interconnection of a Distributed Electricity Generation Facility (DEGF), as defined herein, include certification and operation as a Qualifying Facility (QF) under PURPA, such QF-related requirements and processes shall not be applicable to the Interconnection of an Eligible Renewable Electrical Generating Facility (EREGF), as defined herein.

Interconnection of a Qualifying Facility (QF) with a Nameplate Rating greater than 100 kilowatts of alternating current (AC), regardless of whether the Interconnection is requested on the Cooperative's electrical system or the electrical system of Prairie Power, Inc. (PPI), the electric generation and transmission cooperative of which the Cooperative is a member, shall, in accordance with PPI's Policy #509 (Interconnection Policy for Cogenerators and Small Power Producers under Public Utility Regulatory Policies Act (PURPA)), comply with interconnection requirements, policies, rules, terms procedures and cost recovery methodology adopted by PPI.

DEFINITIONS FOR PURPOSES OF THIS POLICY

“Cooperative” means Shelby Electric Cooperative which owns and operates the power lines delivering electrical power and energy to the premises of its members within a defined geographic service territory.

“Requestor” means a member (whether an individual person or an entity) of the Cooperative making an Interconnection Request for the Interconnection of a DGP at the member's specific service location premises.

“Distributed Generation Project” or “DGP” means a Distributed Electricity Generation Facility (DEGF) or an Eligible Renewable Electrical Generating Facility (EREGF).

“Distributed Electricity Generation Facility” or “DEGF” means an electric-generating facility that: (i) has a Nameplate Rating not exceeding 100 kilowatts of alternating current (AC) capacity, (ii) is a Qualifying Facility (QF) as defined in the policies of the Cooperative pertaining to Interconnection of and Service to Qualifying Facilities under Public Utility Regulatory Policies Act (PURPA) (Board Policy 321), (iii) is interconnecting with the electrical system of the Cooperative, and (iv) is not administered under the net metering provisions of Board Policy 308 (Net Metering and Cooperative Credit for Excess Member-Generated Electric Energy).

“Eligible Renewable Electrical Generating Facility” or “EREGF” means (i) a generator 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, (ii) with a generator capacity of 10kW DC or less, (iii) which is not certified as a Qualifying Facility, and (iv) is eligible for coverage under Board Policy 308 (Net Metering and Cooperative Credit for Excess Member-Generated Electric Energy).

“Nameplate Rating” means the maximum electrical energy production capability of the Distributed Generation Project, specified in kilowatts of alternating current, deliverable to the Point of Interconnection.

“IEEE” means the Institute of Electrical and Electronic Engineers, Inc.

“IEEE Standard 1547” means the most current revision, at the time of the DGP interconnection request submittal, of IEEE Standard 1547. The current revision of IEEE Standard 1547 is titled “Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces”.

“IEEE Standard 1547.1” means the amended release of the Institute of Electrical and Electronic Engineers, Inc. (IEEE) Standard 1547.1 at the time of the DGP interconnection request submittal. The current title of this standards is “Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems” as amended and supplemented, at the time the Interconnection Request is submitted.

“UL Standard 1741” means the amended release of Underwriters Laboratories (UL) Standard 1741 standard titled “Inverters, Converters, and Controllers for Use in Independent Power Systems,” November 7, 2005 edition, as amended and supplemented.

“MISO” means the Midcontinent Independent System Operator.

“Parallel Operation” means AC electrical generation operated in electrical synchronism with the voltage and frequency of the grid in a manner consistent with applicable electrical codes and standards, and in accordance with good utility practice.

“Point of Interconnection” means the physical point where (i) the facilities of the Requestor’s DGP meet the facilities of the Cooperative, (ii) title to energy, capacity, or both is transferred, and (iii) energy, capacity, or both is delivered from the Requestor’s DGP.

“Interconnection” or “Interconnect” means the physical electrical connection interface between two

electrical systems owned by different parties.

“member” means a member of the Cooperative which is provided electrical power and energy by the Cooperative through a retail service meter.

“Interconnection Request” means a request from the Requestor to the Cooperative to Interconnect Requestor’s DGP to the Cooperative’s electrical system and is comprised of the following three items, as applicable: (a) a fully-executed and completed Application for Distributed Generation Project, including the Distributed Generation Project General Description and Electrical Characteristics (Attachment A hereto); (b) for a DEGF, an original signed copy of the Requestor Certification of Qualifying Facility Under Public Utility Regulatory Policies Act (PURPA) (Attachment B hereto); and (c) remittance to the Cooperative of (i) a non-refundable application fee and (ii) any required analysis deposit. An Application for Distributed Generation Project is not deemed active until the Application for Distributed Generation Project has been determined to be complete and has been annotated with a Holding Date indicating entry into the Queue.

“Holding Date” means the date and time corresponding to the Cooperative determination that an Interconnection Request is complete and is placed in the Queue. This determination includes receiving all applicable paperwork, application fee, and analysis deposit.

“Queue” means the formal order of DGPs, arranged in order of their corresponding Holding Dates.

“Queue Date” means the date and time corresponding to the Cooperative determination that analysis of a DGP may commence within the Queue. Analysis of the Interconnection Request for a particular DGP begins once construction, installation, and energization of all DGPs having prior Holding Dates within the Queue that would or may impact the analysis of the Interconnection Request of the particular DGP have been completed. If analysis of the Interconnection Request for a particular DGP would not be impacted by the completion construction, installation, and energization of other DGPs having Holding Dates in the Queue prior to the Holding Date of that particular DGP, analysis of the Interconnection Request of that particular DGP may commence even though analysis of Interconnection Requests and construction, installation, and energization for such other DGPs with prior Holding Dates have not yet been completed.

“Small Distributed Generation Facility” or “Small DG” means one or more electricity production resources which meet all of the following criteria: (1) owned by a Member or Members; (2) located in Shelby Electric Cooperative’s retail service area; (3) connected to and operating on the Member or Members’ low-voltage electric premises wiring associated with a single, specified service metering point; (4) the total combined Nameplate Rating for such resources at the single, specified service metering point is more than 10 kilowatts and less than or equal to 50 kilowatts and sized to offset no more than 110% of the Member or Members’ load over the previous 12 months (if 12 months of data is not available, the average amount of similar Members shall be used); (5) such resources produce electric energy using biomass, waste, renewable resources, including wind, solar energy, and water; and (6) such resources are not taking service as either an EREGF under Shelby Electric Policy #308 or as a Qualifying Facility under Shelby Electric Policy #321.

III. PROCESSING INTERCONNECTION REQUESTS

- A. A Requestor seeking to interconnect a DGP shall submit to the Cooperative an executed Interconnection Request.

- B. The Interconnection Request will be reviewed by the Cooperative for completeness. Once the Interconnection Request is determined by the Cooperative to be complete, the Interconnection Request shall be annotated by the Cooperative to indicate placement into the Queue and assignment of the Holding Date for that Interconnection Request. An annotated copy of the Interconnection Request shall be provided to the Requestor initiating the Interconnection Request.
- C. Interconnection Requests shall be evaluated for their impact on the electrical system of the Cooperative and any other affected utility in the order of the Holding Dates within the Queue, except that, if analysis of the Interconnection Request for a particular DGP would not be impacted by the Interconnection Request of other DGPs having Holding Dates in the Queue prior to the Holding Date of that particular DGP, analysis of the Interconnection Request of that particular DGP may commence even though analysis of Interconnection Requests and construction, installation, and energization for such other DGPs with prior Holding Dates have not yet been completed. The Interconnection Request shall be annotated by the Cooperative to indicate the commencement of analysis of the Interconnection Request and the issuance of the Queue Date. Beginning on the Queue Date, the Cooperative will use reasonable efforts to meet the following schedule for analysis and work; however, the Cooperative shall not be legally bound by the timeframes set forth in this schedule.
- D. Within 30 business days of the Queue Date (for a DGP with a Nameplate Rating of less than 50 kW) or within 60 business days of the Queue Date (for a DGP with a Nameplate Rating of 50 kW or greater, but not greater than 100 kW), the Cooperative shall analyze the Interconnection of the DGP regarding interaction with and effect upon the electrical system of the Cooperative. In doing so, the Cooperative will determine and specify any enhancements to the electric system of the Cooperative necessary to accommodate the Interconnection of the DGP.
- E. Within 35 business days of the Queue Date (for a DGP with a Nameplate Rating of less than 50 kW) or within 65 business days of the Queue Date (for a DGP with a Nameplate Rating of 50 kW or greater, but not greater than 100 kW), the Cooperative, in its sole and unfettered judgement, will determine if there is a likelihood of material electrical impact to third-party utility electrical systems. If the Cooperative determines that there is a likelihood of material impact to third-party utility electrical systems, the Cooperative will notify the Requestor of the Cooperative's obligation to notify the third-party utility, and the right of the third-party utility to require its own analyses of impacts. The Cooperative will arrange for discussions with the third-party utility as required. The Requestor will be responsible for all costs related to the third-party utility analyses, and the Requestor will be required to arrange for any required payments to the third-party utility. In the event a third-party utility analysis is necessary, the subsequent schedule as described in paragraphs F through Q of this Section III will be adjusted day-for-day as it corresponds to the completion of the third-party utility analyses.
- F. Within 40 business days of the Queue Date (for a DGP with a Nameplate Rating of less than 50 kW) or within 70 business days of the Queue Date (for a DGP with a Nameplate Rating of 50 kW or greater, but not greater than 100 kW), the Cooperative shall communicate in writing to the Requestor any added electrical elements, improvements, enhancements, systems, or other consequential additions, changes, or operational restrictions to the Cooperative electrical system necessary to accommodate the Interconnection. A commensurate budgetary estimate shall be prepared by the Cooperative at

this same time. The Cooperative shall formally notify the Requestor in writing of this budgetary estimate and shall clearly state the Cooperative plans no further action at this time, pending the execution of an Interconnection Construction Agreement (Attachment C).

- G. If the Cooperative will incur no cost associated with the Interconnection, within 40 business days of the Queue Date, the Requestor shall be notified in writing whether the Interconnection Request has been approved by the Cooperative.
- H. If there are costs to be incurred by the Cooperative to facilitate the Interconnection, within 60 business days of the Queue Date (for a DGP with a Nameplate Rating of less than 50 kW) or within 90 business days of the Queue Date (for a DGP with a Nameplate Rating of 50 kW or greater, but not greater than 100 kW), the Requestor shall execute an Interconnection Construction Agreement in the form of Attachment C and place on deposit with the Cooperative an amount equal to 110% of the budgetary cost estimated for the Interconnection. Upon completion of the Interconnection-related work, any unused funds shall be remitted to the Requestor along with an accounting of the costs incurred. It shall be the responsibility of the Requestor to pay the full and total cost of the Interconnection even if such amount is in excess of the deposit(s). As the Interconnection work progresses, should the actual costs be then forecast to exceed 110% of the full budgetary estimate on deposit with the Cooperative, the Cooperative shall request additional funds to be placed on deposit with the Cooperative. Failure by the Requestor to do so in the timeframe specified by the Cooperative may, based on the sole and unfettered judgement of the Cooperative, result in the Cooperative temporarily ceasing all work on the Interconnection.
 - a. Requestor's payment of construction costs shall be treated as a contribution to the Cooperative in aid of construction only, and Requestor shall not acquire any ownership interest in the metering, wiring, safety devices, or other equipment installed by the Cooperative at Requestor's service location.
 - b. Failure by the Requestor to place funds on deposit with the Cooperative within 30 days after the date specified in the schedule above shall result in the Interconnection Request being cancelled and voided. A subsequent request by the Requestor to renew or resume the cancelled Interconnection Request shall be treated as an entirely new Interconnection Request.
- I. The third-party utility analysis may conclude that added electrical elements, improvements, enhancements, systems, or other consequential third-party electric system additions, changes, or operational restrictions are necessary to accommodate the Interconnection. Arrangements with the third-party utility for payment of any related costs are the responsibility of the Requestor. The Cooperative will coordinate activities among the Requestor, the Cooperative, and the third-party utility to the best of the Cooperative's ability, but explicitly does not warrant the process or outcome.
- J. At the sole and unfettered discretion of the Cooperative, the Cooperative shall provide the Requestor with certain requirements and related specifications pertaining to the design and construction of the Interconnection as it regards the work required of the Requestor. Such specifications may include required electrical protection schemes, voltage coordination arrangements, or any other

considerations in keeping with good utility practice including, but not limited to, (i) IEEE Standard 1547 (ii) IEEE Standard 1547.1, and (iii) UL 1741.

- K. The Interconnection work on behalf of the Cooperative shall be completed in keeping with the normal and conventional work practices, hours, and priorities of the Cooperative. The Cooperative will not warrant a completion date of the work required for the Interconnection.
- L. The Cooperative will notify the Requestor in writing of completion of the Interconnection work undertaken by the Cooperative. Notice of completion of the Interconnection work is not an authorization for energization of the DGP or the Interconnection by the Requestor.
- M. The Requestor shall formally notify the Cooperative in writing of completion of the Interconnection work required of the Requestor and, at the Cooperative's sole and unfettered discretion, the Requestor may be required by the Cooperative to provide a Certificate of Completion from a certified licensed electrician. Notwithstanding the completion of the Interconnection work required of the Requestor, the main electrical disconnect controlling the electrical interfacing of the DGP with the electrical system of the Cooperative shall remain open and locked. At this time, the Requestor shall provide the Cooperative with a certificate of insurance as required in this Policy.
- N. If a third-party utility required certain work to be done to facilitate the Interconnection, the Requestor is responsible for obtaining a Certificate of Completion from the thirdparty utility. Notwithstanding the completion of the Interconnection work required of the third-party utility, the main electrical disconnect controlling the electric interfacing of the DGP with the electrical system of the Cooperative shall remain opened and locked.
- O. Subsequent to the Cooperative notifying the Requestor in writing of completion of the Interconnection work undertaken by the Cooperative, and within 10_business days of receipt of notice by the Cooperative of completion of Interconnection work by the Requestor and the third-party utility, if applicable, the Cooperative at its sole and unfettered discretion may inspect the DGP including, but not limited to the Point of Interconnection. Upon satisfaction of the Cooperative, the Requestor shall execute an Agreement for Interconnection and Parallel Operation of Distributed Generation in the form of Attachment D to this policy.
- P. After the execution of the Agreement for Interconnection (Attachment D), the Cooperative shall issue the Requestor, in writing, a formal Authorization to Energize in the form of Attachment E. Absent the Authorization to Energize, the main electrical disconnect controlling the electrical interfacing of the DGP with the electrical system of the Cooperative shall remain open and locked.
- Q. Any remuneration or credit due either party as a direct result of the ongoing operations of the generation shall be as specified in the policies of the Cooperative regarding Interconnection of and Service to Qualifying Facilities under Public Utility Regulatory Policies Act (PURPA) (Board Policy 321) or Net Metering and Cooperative Credit for Excess Member-Generated Electric Energy (Board Policy 308) or Small Distributed Generation Facilities Incentive (Board Policy 323).
- R. If, at any point, changes to the DGP are made by the Requestor, Requestor shall provide detailed information concerning such changes, in writing, to the Cooperative. Any and all changes must be

reflected in an amended Distributed Generation Project General Description and Electric Characteristics included in the Application for Distributed Generation Project (Attachment A). Should the change be considered a material modification, a new Application for Distributed Generation Project will be required and all application fees, analysis to that point, and position in the Queue will be forfeited and the Interconnection Request process shall be re-started. Material modifications may include, but are not limited to, any changes in Interconnection configuration and/or technical parameters. The materiality of such changes or modifications shall be determined in the sole and unfettered discretion of the Cooperative.

IV. REQUIREMENTS

- A. Requestor shall carry and keep in force liability insurance 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 Requestor's ownership and/or operation of the DGP under this policy. Prior to Interconnection of a DGP to the Cooperative's electrical system, the Requestor shall provide a certificate of insurance to the Cooperative reflecting a coverage limit of not less than \$1,000,000 per occurrence and shall provide for a minimum 30-day notice of cancellation. At all times thereafter, but not less frequently than annually, or upon demand by the Cooperative, the Requestor shall provide a renewal or replacement certificate of insurance to the Cooperative reflecting such coverages.
- B. No DGP installation will be permitted that:
 - a. reduces reliability to other members or patrons of the Cooperative or causes voltage conditions on the Cooperative's electric system to be outside of the limits of ANSI C84.1 Range A;
 - b. is expected to produce objectionable harmonics on the Cooperative's electric system. Any mitigation required to resolve harmonic problems created by Requestor's DGP will be completed and paid for by the Requestor; or
 - c. creates a safety concern or hazard to the public or Cooperative personnel.
- C. The Requestor's DGP shall be subject to the Cooperative's requirements for maintaining voltage standards, the production of reactive power, phasing, and frequency.
- D. The Cooperative (and its agents and employees) shall have free and unencumbered access to the DGP, Interconnection-associated equipment, and the Requestor's premises at all times for any reasonable purpose in connection with the Interconnection or the provisions of this policy.
- E. The Requestor shall not in any manner operate the DGP so as to energize the Cooperative's system during any period of electricity service interruption. The Requestor's equipment must contain a disconnect device to which the Cooperative (and its agents or employees) have access and which the Cooperative (and its agents or employees) can lock in an open position to disconnect, for safety reasons, the Requestor's DGP from the Cooperative's

electric delivery system.

- F. Electric generation facilities, including any DGP Interconnected under this policy, may be disconnected by the Cooperative (and its agents or employees) from the Cooperative's electric system whenever, in the sole and unfettered opinion of the Cooperative, such action is required by an emergency, for reasons of personal or public safety, or it is believed, in the sole and unfettered judgement of the Cooperative that the DGP is causing an adverse impact on quality of electricity service. The Cooperative (and its agents or employees) shall attempt to provide reasonable notice to the Requestor prior to disconnection of the DGP, if possible, but the Cooperative is under no obligation to do so.
- G. The Requestor shall pay all costs of the Interconnection including initial and future transmission, distribution, metering, service, and other facilities costs necessary to permit Parallel Operations with the Cooperative.
- H. Any auxiliary or reserve power service required by the Requestor must be arranged in accordance with the terms of the Cooperative's applicable policies and rates as they may be modified from time to time.
- I. In the event of a dispute between the Cooperative and the Requestor, 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 that the dispute be referred to an impartial mediator selected by the parties, the costs of which will be borne equally by the parties. If neither party requests the dispute be referred to an impartial mediator or if mediation fails to resolve the dispute, then either party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this policy.

V. INDEMNIFICATION

The Requestor shall indemnify the Cooperative, its directors, officers, representatives, agents, and employees against any and all loss, damage, expense and/or liability to any person, including, but not limited to, Cooperative members, for injury to or death of any person and/or for injury or damage to property, including, without limitation, consequential damages, interest, punitive damages, fees and charges due the Cooperative from the Requestor in accordance with both applicable rate schedules for the provision of electric service and the Cooperative's regulations, attorney's fees, court costs and expenses, whether in whole or in part proximately caused by the construction, ownership, interconnection, operation or maintenance of, or by failure of, any works or facilities used in connection with the operation of the Requestor's DGP. The Requestor will, upon the Cooperative's request, accept tender of defend any suit asserting a claim covered by this obligation to indemnify the Cooperative and/or its directors, officers, agents, or employees.

Adopted: January 22, 2008

Amended: July 27, 2010

Amended: July 23, 2019

Amended: February 22, 2022

SHELBY ELECTRIC COOPERATIVE

BOARD POLICY 308

NET METERING AND COOPERATIVE CREDIT FOR EXCESS MEMBER-GENERATED ELECTRIC ENERGY BY ELIGIBLE RENEWABLE ELECTRICAL GENERATING FACILITIES

I. OBJECTIVE

To provide for net metering of members generating electric energy utilizing an eligible renewable electrical generating facility (EREGF), as defined below, and to provide for a credit by the Cooperative to the member for excess electric energy produced by the EREGF and received by the Cooperative from the member, while honoring the Cooperative's obligation to provide electricity to all members on a cooperative basis as required by the Illinois Not-for-Profit Corporation Act and Internal Revenue Code Section 501(c)(12) and complying with the Cooperative's wholesale power contract obligations with Prairie Power, Inc. and PPI's Policy #504 (Net Metering and Delivery of Excess MemberConsumer-Generated Electricity).

II. DEFINITIONS

To the extent the following terms are used in this policy, the following definitions shall apply. To the extent that the same term is used in this policy and Prairie Power, Inc.'s Policy #504, the definition of such term contained in Prairie Power, Inc.'s Policy #504 shall control, in the event of a conflict between the definitions.

"Annual period" means the twelve-month period commencing on April 1 of a year and ending on March 31 of the following year.

"Billing period" means the period of time over which the Cooperative bills a member for electric energy consumed during that time and for other applicable charges from the Cooperative.

"Eligible member" means a Cooperative member in good standing with the Cooperative that owns and operates an EREGF where the EREGF is located at and associated with the Cooperative member's specified service metering point and is intended primarily to offset that Cooperative member's own electric energy requirements at that specified service metering point.

"Eligible renewable electrical generating facility" or "EREGF" means one or more generator(s) owned by a Cooperative member and located at and associated with the Cooperative member's specified service metering point where: (A) the total combined nameplate rating for such generator(s) at the specified service metering point is (1) not more than 10 kilowatts or (2) more than 10 kilowatts but not exceeding 40 kilowatts, that was, on or prior to December 31, 2016, (a) connected to and operating on the member's low-voltage electric premises wiring associated with the specified service metering point or (b) had pending for approval an active application for such connection to and operation on the member's low-voltage electric premises wiring associated with the specified service metering point and for which such connection was thereafter approved and installation was substantially completed by June 30, 2017, but only to the extent the total combined nameplate rating of the EREGF exceeded 10 kilowatts at the time of its

installation, and (B) such generator(s) are powered by solar electric energy, wind, dedicated crops grown for electricity generation, agricultural residues, untreated wood waste and unadulterated wood waste, landscape trimmings, livestock manure, anaerobic digestion of livestock waste or anaerobic digestion of food processing waste, fuel cells powered by renewable fuels or microturbines powered by renewable fuels, or hydroelectric energy.

“Hourly marginal electricity value” or “HMEV” means the average of the hourly MISO Day Ahead Locational Marginal Prices (DA LMP) for electric energy at the applicable Prairie Power, Inc. Commercial Pricing (CP) Node during the applicable billing period.

“MISO” means the Midcontinent Independent System Operator, Inc., or its successors in interest.

“Nameplate rating” means the maximum electric energy production capability of a generator, specified in kilowatts, as stated on the generator device(s) placards or nameplates or in the manufacturer’s specifications, prior to any power inverter device(s).

“Net electricity metering” or “net metering” means the measurement, during the billing period applicable to an eligible member, of the electrical energy sales volume at a single specified service metering point by the Cooperative’s retail meter when an EREGF is owned by the eligible member and is connected to and operating on the eligible member’s low-voltage electric premises wiring associated with the specified service metering point.

“Net purchaser of electricity” means an eligible member whose total amount of electric energy generated by an EREGF is less than the eligible member’s total electric energy usage during an applicable billing period.

“Net seller of electricity” means an eligible member whose total amount of electric energy generated by an EREGF is greater than the eligible member’s total electric energy usage during an applicable billing period.

“Prairie Power, Inc.” or “PPI” means Prairie Power, Inc., an Illinois not-for-profit corporation, or its successors in interest, which is an electric generation and transmission cooperative of which the Cooperative is a member and from which, by contract, the Cooperative obtains its wholesale supply of electricity.

III. APPLICABILITY

This net metering policy applies to an eligible member that chooses to connect the eligible member’s EREGF to the member’s low-voltage electric premises wiring associated with a specified service metering point.

IV. PROVISIONS

- A. An eligible member shall first comply with the provisions of the Cooperative’s Board Policy 307 Interconnection and Parallel Operation of Distributed Generation, as it relates to the connection of an EREGF to, and the operation of such EREGF on, the member’s low-voltage electric premises wiring associated with the specified service

metering point.

- B. The Cooperative's retail service meter serving the eligible member's specified service metering point where the EREGF is located shall remain in place and be capable of measuring the flow of electricity both into and out of the eligible member's specified service metering point and recording the flow of electric energy in both directions. If the existing retail service meter serving the eligible member's specified service metering point is not capable of meeting these requirements, or if the member requests an additional meter, the cost of installing and maintaining a retail service meter having that capability or an additional meter shall be paid by the member.
- C. For an eligible member with an EREGF, the Cooperative shall measure and charge or credit for the net electric energy supplied to the eligible member or provided by the eligible member as follows:
 - 1. The Cooperative shall determine whether the eligible member is a net purchaser of electricity or a net seller of electricity during the billing period.
 - 2. If the eligible member is a net purchaser of electricity during the billing period, the Cooperative shall charge the member for the net electric energy supplied to and used by the member at the retail rate the eligible member would be charged if the member was not an eligible member.
 - 3. If the eligible member is a net seller of electricity during the billing period, the Cooperative will calculate a monetary credit for any metered excess kilowatt-hours of electric energy delivered to the Cooperative at a rate equal to the HMEV corresponding to the billing period and apply such credit against only the electric energy-related charges derived specifically from the consumption of electric energy measured in units of kilowatt hours as denoted on a subsequent bill for service to the eligible member. The Cooperative shall continue to carry over any unused amount of such credits and apply those credits to subsequent billing periods to offset only any electric energy-related charges derived specifically from the consumption of electric energy measured in units of kilowatt-hours due from the eligible member as denoted in the billing for those subsequent billing periods until all credits are used or until the end of the annual period, whichever occurs first.
 - 4. Except as set forth in this paragraph, at the end of the annual period that service is supplied by means of net metering, or in the event that the eligible member terminates service with the Cooperative during an annual period, any remaining credits in the eligible member's account shall expire and no credit or payment shall be due to the member for such expired credits. For an eligible member who has not terminated service with the Cooperative during an annual period and who owns and operates an EREGF that was connected to and operating on the member's low-voltage electric premises wiring associated with the specified service metering point on or before October 25, 2016, the Cooperative shall, at the end of each annual period through March 31, 2022, pay the eligible member any remaining credits in the eligible member's account.

5. Any credit to an eligible member under this policy derived from the eligible member being a net seller of electricity shall be applied only to the charge for electric energy delivered to the eligible member. No part of such credit shall be applied to, and the eligible member shall remain responsible for, (a) taxes, fees, and other charges that would otherwise be applicable to the net amount of electric energy purchased by the eligible member from the Cooperative, and (b) other charges to the eligible member under any Cooperative policies, bylaws, rules, regulations, or rates, that are not based on a unitized charge per kilowatt-hour, including, but not limited to, basic service charges or facilities charges.
- D. All renewable energy credits, greenhouse gas emission credits and renewable energy attributes related to any electricity produced by the eligible member's EREGF and purchased by the Cooperative shall be treated as owned by the eligible member.
- E. The Cooperative shall make net metering available to eligible members until the aggregate installed EREGF nameplate ratings of the Cooperative's eligible members using net metering equals 5% of the Cooperative's annual coincident peak demand during the previous calendar year.
- F. This policy is subject to all federal, state and local laws, the Cooperative's articles of incorporation, bylaws and existing policies and the terms and conditions of the Cooperative's existing wholesale power contract with Prairie Power, Inc. and loan agreements, and the terms of Prairie Power, Inc.'s Policy #504. To the extent any provision of this policy conflicts with those obligations, those provisions of this policy are deemed null and void.

Adopted: January 22, 2008

Amended: July 27, 2010

Amended: October 25, 2016

Amended: February 22, 2022

SHELBY ELECTRIC COOPERATIVE

BOARD POLICY 321

INTERCONNECTION OF AND SERVICE TO QUALIFYING FACILITIES UNDER PUBLIC UTILITY REGULATORY POLICIES ACT (PURPA)

I. OBJECTIVE

To provide, through joint integrated implementation with Prairie Power, Inc. and other Members of PPI, for interconnection of and service to a Qualifying Facility located in the Cooperative's service territory under the Public Utility Regulatory Policies Act, consistent with the Waiver approved by the Federal Energy Regulatory Commission (FERC).

II. DEFINITIONS

"PURPA" means Sections 201 and 210 of the Public Utility Regulatory Policies Act codified at 16 U.S. Code §796 and §824a-3, as it has been or may hereafter be amended, together with all rules or regulations promulgated thereunder as it relates to Qualifying Facilities (e.g., Code of Federal Regulations, Title 18, Part 292).

"Qualifying Facility" or "QF" means a cogeneration facility or a small power production facility that meets the operational, efficiency, ownership and other standards set forth in PURPA and that has been certified by FERC as a qualifying facility.

"cogeneration facility" means a facility that produces electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes, but not including an electric generator that produces only a small token amount of useful thermal energy.

"small power production facility" means a facility that produces electric energy using biomass, waste, renewable resources, including wind, solar energy and water, or which together with other facilities at the same site have a generating capacity equal to or less than 80 megawatts.

"Waiver" means the waiver of the Cooperative's obligation to purchase electricity from a QF and the waiver of PPI's obligation to provide supplementary, back-up, maintenance, and interruptible power to a QF as approved by the Federal Energy Regulatory Commission (FERC) in the Order Granting Petition for Waiver, dated February 5, 1990, in FERC Docket No. IR-168-001.

"Prairie Power, Inc." or "PPI" means Prairie Power, Inc., an Illinois not-for-profit corporation, or its successors in interest, which is an electric generation and transmission cooperative of which the Cooperative is a Member and from which, by contract, the Cooperative obtains its wholesale supply of electricity.

"Member" means a Class A Member of PPI, which individually are Adams Electrical Co-Operative, Coles-Moultrie Electric Cooperative, Eastern Illini

Electric Cooperative, Illinois Electric Cooperative, Jo-Carroll Energy Inc., McDonough Power Cooperative, Menard Electric Cooperative, Shelby Electric Cooperative, Spoon River Electric Cooperative, and Western Illinois Electrical Cooperative.

“Members” means one or more Member.

“Generator Interconnection Agreement” or **“GIA”** means an agreement and any associated procedures and processes, among PPI, the owner of a QF and, if applicable, the Midcontinent Independent System Operator (MISO), generally in the standard form developed by PPI, governing the design, engineering, safe and reliable operations, procurement, construction, installation, ownership, operation, maintenance, facilities, metering, costs, cost recovery, and other matters related to the interconnection of the any electric generation facility to the electric transmission system of PPI or to the electric distribution system of a Member consistent with the requirements of NERC Reliability Standard FAC-001.

III. APPLICABILITY

This policy applies to a Qualifying Facility located in the Cooperative’s service territory. This policy does not apply to the delivery of electric energy by a member to the Cooperative from an eligible renewable electric generation facility (EREGF) or from a Small Distributed Generation Facility (Small DG), where the member has elected to deliver such electric energy under the Cooperative’s Net Metering and Cooperative Credit for Excess Member Generated Electric Energy (Board Policy 308) or under the Cooperative’s Small Distributed Generation Facilities Incentive (Board Policy 323).

IV. PROVISIONS

- A. Consistent with the joint integrated implementation by PPI, the Cooperative, and other Members to meet their respective obligations under PURPA, the Cooperative assents to the framework and processes set forth in PPI Policy No. 509 (Interconnection Policy for Cogenerators and Small Power Producers under Public Utility Regulatory Policies Act (PURPA)), as that policy may be amended or revised from time to time. The Cooperative shall act in coordination with PPI, in accordance with PPI Policy No. 509, to meet their respective obligations under PURPA, consistent with the Waiver.
- B. The Cooperative and PPI shall, in accordance with PPI Policy No. 509, provide for the interconnection of a QF to the Cooperative’s electric transmission or distribution system or PPI’s electric transmission system. As set forth and designated in PPI Policy No. 509, such interconnection of a QF shall be in accordance with the applicable provisions and terms of (1) the Cooperative’s Board Policy 307 (Interconnection and Parallel Operation of Distributed Generation) and any agreement entered into under that policy between the Cooperative and the QF or (2) a Generator Interconnection Agreement entered into among PPI, QF, and such other parties as may be necessary or appropriate.
- C. Consistent with the Waiver and in accordance with the terms and conditions of PPI Policy No. 509:

1. PPI shall purchase from the owner of the QF the electric energy and electric capacity (if any) supplied by the QF that the Cooperative would otherwise be required to purchase;
2. The Cooperative shall not impose on the QF any duplicate charge or additional fees as a result of PPI's purchase of electric energy and electric capacity (if any) which would otherwise be purchased by the Cooperative;
3. The Cooperative shall not impose on the QF any duplicate interconnection charges or charges for wheeling power to PPI across the lines of the Cooperative; and
4. The Cooperative shall make available to a QF located in its service territory supplementary, back-up, maintenance and interruptible power at rates determined by the Cooperative that are nondiscriminatory, just and reasonable, and in the public interest.

Adopted: April 19, 2017

Amended: February 22, 2022

SHELBY ELECTRIC COOPERATIVE

BOARD POLICY 323

SMALL DISTRIBUTED GENERATION FACILITIES INCENTIVE

I. OBJECTIVE

To support renewable resources located in the service territory of the Cooperative by offering those Members generating electric energy utilizing a Small Distributed Generation Facility (Small DG), as defined below, the option of receiving a credit from the Cooperative to the Member for excess electric energy produced by the Small DG and received by the Cooperative from the Member, while honoring the Cooperative's obligation to provide electricity to all Members on a cooperative basis as required by the Illinois Not-for-Profit Corporation Act and Internal Revenue Code Section 501(c)(12) and while complying with the Cooperative's Wholesale Power Contract obligations with Prairie Power, Inc. (PPI) and with PPI's Policy #510 (Small Distributed Generation Facilities Incentive).

II. DEFINITIONS

"Cooperative" means Shelby Electric Cooperative and its successors and assigns.

"Member" or "Members" means one or more Class A Members of the Cooperative.

"Nameplate rating" means the maximum electric energy production capability of a resource, specified in alternating current (AC) kilowatts after the inverter.

"Prairie Power, Inc." or "PPI" means Prairie Power, Inc., an Illinois not-forprofit corporation, or its successors in interest, which is an electric generation and transmission cooperative of which the Cooperative is a member and from which, by contract, the Cooperative obtains its wholesale supply of electricity.

"Small DG Incentive" means a monetary payment in the form of a bill credit by the Cooperative to the Member-owner of a Small DG for excess energy generated by the Small DG and registered on the designated meter.

"Small Distributed Generation Facilities" or "Small DG" means one or more electricity production resources which meet all of the following criteria: (1) owned by a Member; (2) located in the retail service area of the Cooperative; (3) connected to and operating on the Member's low-voltage electric premises wiring associated with a single, specified service metering point; (4) the total combined Nameplate Rating for such resources at the single, specified service metering point is more than 10 kilowatts and less than or equal to 50 kilowatts and sized to offset no more than 110% of the Member's load over the previous 12 months (if 12 months of data is not available, the average amount of similar Members shall be used); (5)

such resources produce electric energy using biomass, waste, renewable resources, including wind, solar energy, and water; and (6) such resources are not taking service as either an EREGF under Cooperative's Board Policy #308 and PPI Policy #504 or as a Qualifying Facility under Cooperative's Board Policy #321 and PPI Policy #509.

III. APPLICABILITY

This incentive is available, at the option of an eligible Member, after first complying with the provisions of the Cooperative's Board Policy #307 (Interconnection and Parallel Operation of Distributed Generation) as it relates to the connection of a Small DG to, and the operation of such Small DG on, the Member's low-voltage electric premises wiring associated with the specified metering point.

IV. INCENTIVE PROVIDED

The Small DG Incentive is equal to:

The **product** of the

kWh per month** produced by the Small DG which are in excess of the Member's electric consumption, received by the Cooperative and registered and recorded by the Cooperative's retail service meter

multiplied by

the annual On-peak Energy Charge Rate as stated in dollars per kWh established annually by the PPI Board in Rate Schedule A of the Wholesale Power Contract between PPI and the Cooperative.

**in the event the meter registers a flow of electric energy out of the single, specified service metering point in an amount greater than 50kWh during any clock-hour, 50kWh shall be used for that clock-hour rather than any amounts greater than 50kWh.

V. LIMITATIONS OF INCENTIVE

Nothing in this Small DG Incentive Policy eliminates or reduces any payment, fee, cost, requirement, process, program, service, or arrangement with any person or entity whether it be PPI, the Cooperative, a Member, MISO, a governmental or regulatory authority, or a utility regarding any aspect of the Small DG, such as interconnection, maintenance, registration, operation, or service.

Additionally, the Cooperative's retail service meter serving the eligible Member's specified service metering point where the Small DG is located, shall remain in place and be capable of measuring the flow of electricity both into and out of the eligible Member's specified service metering point and recording the flow of electric energy in both directions. If the existing retail service meter serving the eligible Member's specified service metering point is not capable of meeting these requirements, or if the Member requests an additional meter, the cost of installing and maintaining a retail service meter having that capability or an additional meter shall be paid by the Member.

VI. EFFECTIVE DATE

This Policy is effective as of February 22, 2022.

Adopted: February 22, 2022