BOARD POLICY 307: ATTACHMENT A

Shelby Electric Cooperative

Your Touchstone Energy® Cooperative

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 (Xd): _____ % 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 (Xo): _____ % on _____ KVA base
Neutral Grounding Resistor (if applicable): _____
_____
Additional information: _____

INDUCTION GENERATOR DATA

Motoring power: _____ kW Equivalent MVA base: _____ MVA
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)
I_2^2t 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:_____

Substation:_____ Feeder:_____

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