

# EASTERN ILLINI ELECTRIC COOPERATIVE

## Application for Operation of Member-Owned Generation

**This application is to be completed and returned to the Cooperative member service representative in order to begin processing the request. See Member Guidelines for Electric Power Generator Installation and Interconnection for additional information.**

INFORMATION: *This application is used by the Cooperative to determine the required equipment configuration for the Member interface. Please provide as much information as possible.*

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### PART 1

#### OWNER/APPLICANT INFORMATION

Member/Owner Name: \_\_\_\_\_

Account Number (if known): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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#### PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Company: \_\_\_\_\_

License/Registration Number and State: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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#### ELECTRICAL CONTRACTOR (as applicable)

Company: \_\_\_\_\_

License/Registration Number and State: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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#### TYPE OF GENERATOR (as applicable)

Photovoltaic \_\_\_\_\_ Wind \_\_\_\_\_ Micro Turbine \_\_\_\_\_  
Diesel Engine \_\_\_\_\_ Gas Engine \_\_\_\_\_ Combustion Turbine \_\_\_\_\_  
Other \_\_\_\_\_

**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)  
Residential \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_  
Generator Rating \_\_\_\_\_ (kW) Annual Estimated Generation \_\_\_\_\_ (kWh)

**DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION**

Provide a description of the proposed installation, including a detailed description of its planned location, the point of electrical interconnection, structure(s) to be served by the generator, and the date you plan to commence operation of the generator.

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\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**END OF PART 1**



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## PART 2

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

### 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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### SYNCHRONOUS GENERATOR DATA (if applicable)

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 (Xd): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Subtransient Reactance (Xd): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Negative Sequence Reactance (Xs): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Zero Sequence Reactance (Xo): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Neutral Grounding Resistor (if applicable): \_\_\_\_\_

$I^2t$  or K (heating time constant): \_\_\_\_\_  
Additional information: \_\_\_\_\_

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### INDUCTION GENERATOR DATA (Complete all applicable items)

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: \_\_\_\_\_

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### 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.<sup>2</sup>  
Energy Source (hydro, steam, wind, etc.) \_\_\_\_\_

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### 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): \_\_\_\_\_

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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: \_\_\_\_\_  
Bushong 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**

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Updated: 04/24/12  
Amended: 02/26/19

**SIGNATURE AND ACKNOWLEDGMENT**

I have fully read, understand and accept all provisions, terms and conditions set forth in Eastern Illini Electric Cooperative Regulation No 27 - Interconnection and Parallel Operation of Distributed Generation.

I desire to interconnect electric generating equipment 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 Regulation No 27.

I have accurately completed the form entitled Distributed Electric Generating Facilities General Description and Electrical Characteristics. I have signed and submitted this form.

I agree the Cooperative will evaluate and analyze the impact my electric generation may have on (i) the operations of Cooperative electric system and (ii) the quality of electric service provided to the member consumers of the Cooperative. The Cooperative has identified the fee associated with this application, which includes the costs of basic design evaluation, to be \$500.00.

I agree the payment of be \$500.00 to the Cooperative is necessary prior to the Cooperative accepting this Member Interconnection Application.

I agree not to undertake Parallel Operation of any generating equipment on the low-voltage premises wiring at my property without of the "Authorization to Energize" signed by the Cooperative.

\_\_\_\_\_  
Applicant/Member

\_\_\_\_\_  
Date

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Electric cooperative contact for application submission and for more information:

Cooperative Contact: Mike Wilson  
Title: VP of Member & Community Relations  
Address: 330 West Ottawa St  
P.O. Box 96  
Paxton, IL 60957  
Phone: 800-824-5102  
Fax: 217-379-2936  
E-mail: mike.wilson@eiec.coop

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QUEUE DATE: \_\_\_\_\_ at TIME: \_\_\_\_\_

BY: \_\_\_\_\_ (Name and Title of Cooperative Employee)