Daviess-Martin County REMC

Application for Operation of Customer-Owned Generation

This application should be completed and returned to Daviess-Martin County REMC in order to begin processing the request.

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

PART 1

OWNER / APPLICANT INFORMATION

Name: _____

Mailing Address: _____

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

Phone Number: _____ Representative: _____

Email Address: _____ Fax Number: _____

TYPE OF GENERATOR (as applicable)

Photovoltaic _____ Wind _____ Microturbine _____

Diesel Engine _____ Gas Engine _____ Combustion Turbine _____

Other _____

MODE OF OPERATION

Total Site Load _____ (kW)

Residential _____ Commercial _____ Industrial _____

Generator Rating _____ (kW) Annual Estimated Generation _____ (kWh)

PROJECT DESIGN / ENGINEER (ARCHITECT) (as applicable)

Company:_____

Mailing Address:_____

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

Phone Number:_____ Representative:_____

Email Address:_____ Fax Number:_____

ELECTRICAL CONTRACTOR (as applicable)

Company:_____

Mailing Address:_____

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

Phone Number:_____ Representative:_____

Email Address:_____ Fax Number:_____

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

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

PART 2

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

SYNCHRONOUS GENERATOR DATA

Unit Number: _____ Total number of units with listed specifications on site: _____

Manufacturer: _____

Type: _____ Date of manufacture: _____

Serial Number (each): _____

Phases: Single Three R.P.M.: _____ Frequency (Hz): _____

Rated Output (for one unit): _____ Kilowatt _____ Kilovolt-Ampere

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

Field Volts: _____ Field Amps: _____ Motoring power (kW): _____

Synchronous Reactance (Xd): _____ % on _____ KVA base

Transient Reactance (Xd'): _____ % on _____ KVA base

Sub-transient 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: _____

INDUCTION GENERATOR DATA

Rotor Resistance (Rr): _____ ohms Stator Resistance (Rs): _____ ohms

Rotor Reactance (Xr): _____ ohms Stator Reactance (Xs) : _____ ohms

Magnetizing Reactance (Xm): _____ ohms Short Circuit Reactance (Xd") : _____ ohms

Design letter: _____ Frame Size: _____

Exciting Current: _____ Temp Rise (deg C): _____

Reactive Power Required: _____ Vars (no load), _____ Vars (full load)

Additional information: _____

PRIME MOVER (Complete all applicable items)

Unit Number: _____ Type: _____

Manufacturer: _____

Serial Number: _____ Date of manufacture: _____

H.P. Rated: _____ H.P. Max.: _____ Inertia Constant: _____ $lb.-ft.^2$

Energy Source (hydro, steam, wind, etc.) _____

GENERATOR TRANSFORMER (Complete all applicable items)

TRANSFORMER (between generator and utility system)

Generator unit number: _____Date of manufacturer: _____

Manufacturer: _____

Serial Number: _____

High Voltage: _____KV, Connection: delta wye, Neutral solidly grounded?_____

Low Voltage: _____KV, Connection: delta wye, Neutral solidly g rounded? _____

Transformer Impedance(Z): _____ on _____KVA base.

Transformer Resistance (R): _____% on _____KVA base.

Transformer Reactance (X): _____% on _____KVA base.

Neutral Grounding Resistor (if applicable): _____

INVERTER DATA (if applicable)

Manufacturer: _____Model: _____

Rated Power Factor (%): _____Rated Voltage (Volts): _____Rated Amperes: _____

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

Type commutation: forced line

Harmonic Distortion: Maximum Single Harmonic (%) _____

Maximum Total Harmonic (%) _____

Note: Attach all available calculations, test reports, and oscillograph 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) _____

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 coordinates.

The customer agrees to provide Daviess-Martin County REMC with any additional information required to complete the interconnection. The customer shall operate their equipment within the guidelines set forth by the cooperative.

Applicant _____ Date _____

SUBMIT APPLICATION TO:

Daviess-Martin County REMC
PO Box 430 | 12628 E 75 N
Loogootee, IN 47553

Phone: 812.295.4200