Attachment A

Distributed Electric Generating Facilities

General Description and Electrical Characteristics

This application is to be completed and returned to McDonough Power Cooperative. This application is used by the Cooperative to determine the required equipment configuration for the member interface. Every effort should be made to supply as much information as possible. This information is not intended as a commitment or contract for billing purposes.

PART 1

APPLICANT INFORMATION

Member Name: _____

Member Cooperative Account Number: _____

Mailing Address:_____

City:_____County:_____State:_____Zip Code:_____

Phone Number:_____Representative:_____

Email Address:_____ Fax Number:_____

Address of generating facility (if different than mailing address): _____

Ownership of generating facility: ☐ Member owned ☐ Leased ☐ Other: _____

DEVELOPER INFORMATION

Representative Name:_____ Company: _____

Mailing Address:_____

City:_____County:_____State:_____Zip Code:_____

Phone Number:_____ License/Registration No. (incl. state):_____

Email Address:_____ Fax Number:_____

PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Company:_____ License/Registration No. (incl. 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 No. (incl. state)_____

Mailing Address:_____

City:_____County:_____State:_____Zip Code:_____

Phone Number:_____Representative:_____

Email Address:_____ Fax Number:_____

TYPE OF GENERATOR (Choose One)

☐ Photovoltaic ☐ Wind ☐ Microturbine ☐ Other:_____

☐ Diesel Engine ☐ Gas Engine ☐ Combustion Turbine _____

ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION

The following information is necessary to help properly design the Cooperative member Interconnection.

TOTAL SITE LOAD: _____ (kW) AC _____ (kW) DC

CHOOSE ONE: ☐ 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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_____

_____

_____

PART 2

(Complete all applicable items or provide spec sheets. 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 (X'd): _____% on _____KVA base
Subtransient Reactance (X"d); _____% on _____KVA base
Negative Sequence Reactance (Xs): _____% on _____KVA base
Zero Sequence Reactance (Xo): _____% on _____KVA base
Neutral Grounding Resistor (if applicable):_____
_____
I_2^2t 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 grounded? _____
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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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.

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:

- **Detailed one-line diagram of the proposed facility**
- **All applicable elementary diagrams**
- **Major equipment specifications (generators, transformers, inverters, circuit breakers, protective relays, etc.)**
- **Test reports**
- **Any other applicable drawings or documents necessary for the proper design of the Interconnection**
- **Describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.)**
- **Address or grid coordinates**

END OF PART 2

Attachment A

SIGNATURES AND QUEUE DATE

The member agrees to provide the Cooperative with any additional information required to complete the Interconnection. The Member shall operate the equipment within the guidelines set forth by the Cooperative.

_____ _____

Applicant Date

ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact:	Mike Smith
Title:	President and CEO
Address:	McDonough Power Cooperative
	1210 W. Jackson Street, P.O. Box 352
	Macomb, IL 61455
Phone:	(309) 833-2101
Fax:	(309) 833-2104
e-mail:	rmsmith@mcdonoughpower.com

QUEUE DATE:_____ at TIME:_____

BY:_____ (Name and Title of Cooperative Employee)