

PLANTERS ELECTRIC MEMBERSHIP CORPORATION

Distributed Generation Interconnection Application

INFORMATION: This information is used by the Cooperative to determine the required equipment configuration for the Member Generator interface. Every effort should be made to supply as much information as possible. Member Generators must not operate their generation facilities in parallel with the Cooperative's system until they have received written authorization for parallel operation from the Cooperative. Unauthorized parallel operation of Member's generating facilities could result in injury to persons and/or damage to equipment or property.

PART 1 - - (To be completed for all Member-Owned Generating Facilities) OWNER/APPLICANT INFORMATION

Owner/Member Name: _____

Mailing Address: _____

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

Phone Number: _____ Representative: _____

Email Address: _____ Fax Number: _____

PROJECT DESIGN/ENGINEERING

Company: _____

Mailing Address: _____

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

Phone Number: _____ Representative: _____

Email Address: _____ Fax Number: _____

ELECTRICAL CONTRACTOR

Company: _____

Mailing Address: _____

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

Phone Number: _____ Representative: _____

Email Address: _____ Fax Number: _____

TYPE OF GENERATOR

Photovoltaic _____ Wind _____ Microturbine _____

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)

Mode of Operation

Isolated _____ Paralleling _____ Power Export _____

Maximum Fault Current Contribution: For Three Phase Fault _____ for Line to Ground Fault: _____

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 - - (To be completed for interconnected generation greater than 10 kW and any isolated (stand-by) generation)

(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: _____

Phases: Single Three RPM: _____ Frequency (Hz): _____

Rated Output (for each unit): _____ Kilowatts _____ Kilovolt-Amperes

Rated Power Factor (%): _____ Rated Volts (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_s): _____ % on _____ kVA Base

Zero Sequence Reactance (X_o): _____ % on _____ kVA Base

Neutral Grounding Resistor (if applicable): _____

$I_2^2 t$ 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

Unit Number: _____ Type: _____
Manufacturer: _____
Serial Number: _____ Date of Manufacture: _____
HP Rating: _____ HP Max: _____ Inertia Constant: _____ lb-ft²
Energy Source (hydro, steam, wind, etc.) _____

GENERATOR TRANSFORMER (Transformer between generator and utility system)

Generator Unit Number: _____ Date of Manufacture: _____
Manufacturer: _____
Serial Number: _____
High Voltage: _____ kV Connection: Delta Wye Neutral Solidly Grounded: Yes No
Low Voltage: _____ kV Connection: Delta Wye Neutral Solidly Grounded: Yes No
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

Manufacturer: _____ Model: _____
Manufacturer Contact Name: _____ Phone: _____
Rated Power Factor (%): _____ Rated Volts (Volts): _____ Rated Amperes: _____
Inverter Type (Ferroresonant, step, pulse-width modulation, etc.): _____
Commutation Type: Forced Line
Harmonic Distortion: Maximum Single Harmonic (%) _____
Maximum Total Harmonic (%) _____

Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output

POWER CIRCUIT BREAKER

Manufacturer: _____ Model: _____

Rated Voltage (kV): _____ Rated Ampacity (A): _____

Interrupting Rating (A): _____ BIL Rating: _____

Control Voltage (Closing): _____ (V) AC DC

Control Voltage (Tripping): _____ (V) AC DC Battery 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 on-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 drawing or documents necessary for the proper design of the interconnection. Also describe the project’s planned operating mode (ex. Combined heat and power, peak shaving, etc.).

TO CONTACT THE COOPERATIVE FOR MORE INFORMATION:

Cooperative contact: Whitney Zeagler
e-mail: solar@plantersemc.com
Address: P.O. Box 979, 1740 Highway 25 N
Millen, GA 30442
Phone: (478) 982-4722 Ext. 253
Fax: (478) 982-4798

SIGNATURE OF SUBMITTING PARTY

Submitting Party Name: _____

Submitting Party Signature: _____ Date: _____

CONTACT INFORMATION FOR SUBMITTING PARTY

(Complete only if different from Owner/Applicant provided)

Mailing Address:

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

PhoneNumber: _____ Representative: _____

Email Address: _____

Fax Number: _____