

SULLIVAN COUNTY RURAL ELECTRIC COOPERATIVE

Application for Operation of Interconnected Customer-Owned Generation

This application should be completed and returned to the Cooperative Contact in order to begin processing the request. See Member Board Policy 624 – Alternate Energy Production for additional information.

INFORMATION: 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.

PART 1

MEMBER/APPLICANT INFORMATION

Name: _____

Mailing

Address: _____

City: _____ State: _____ Zip Code: _____

Daytime Phone No.: _____ Evening Phone No.: _____

Account Number: _____ Map Number: _____

Email Address: _____ Fax Number: _____

PROJECT DESIGN/ENGINEERING (ARCHITECT) (if applicable)

Company: _____ Contact Person: _____

Mailing

Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____ Fax Number: _____

Email Address: _____

ELECTRICAL CONTRACTOR (if applicable)

Company: _____ Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____ Fax Number: _____

Email Address: _____

PART 2

Complete all applicable items. This information is required for your installation to be considered. The equipment manufacturer will be able to provide the information requested in this section.

SYNCHRONOUS GENERATOR DATA

Unit Number: _____ Total number of units with listed specifications on site: _____
Manufacturer: _____
Type: _____ Model No. _____
Serial Number (each): _____ Date of manufacture: _____
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): _____

I₂²t 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: _____

GENERATOR STEP-UP TRANSFORMER (if applicable)

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): _____

INVERTER DATA (if applicable)

Manufacturer: _____ Model: _____
Rated Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____
Inverter Type (ferroresonant, step, pulse-width modulation, etc): _____
Inverter Rating (kw): _____ Phases: _____
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) _____

SHORT CIRCUIT CURRENT CONTRIBUTION AND UNIT INRUSH CURRENT OF THE PROPOSED GENERATING FACILITY

Distributed Generator Short Circuit Current

Single Phase to Ground _____ Amperes
Three-Phase Symmetrical _____ Amperes
Three-Phase Asymmetrical _____ Amperes

Does the Facility Start with the Aid of Grid Power? _____ Yes _____ No

If yes, what is the inrush Current? _____ amps (inrush current)

Will this Generation be used to primarily offset the members' electrical energy consumption?
_____ Yes _____ No

If yes, generators up to 50 KW for residential consumer class and up to 200 KW for all other consumer classes qualify for the cooperatives net metering AES service rate.

ADDITIONAL INFORMATION

In addition to the items listed above, please attach the following:

- detailed one-line diagram of the proposed facility
- all applicable elementary diagrams
- control schematics
- site plan
- major equipment (generators, transformers, inverters, circuit breakers, protective relays, etc.)
- specifications
- test reports
- any other applicable drawings or documents necessary for the proper design of the interconnection

SIGN OFF AREA

The member agrees to provide the Cooperative with any additional information required to complete the interconnection. The member agrees to operate his equipment within the guidelines set forth by the cooperatives policy on alternate energy production.

Applicant Signature

Date

Application Received By

Date

ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact: **John Lykens**
Title: **CEO**
Address: **Sullivan County Rural Electric Cooperative**
PO Box 65, 5675 Route 87
Forksville, PA 18616
Phone: **(570) 924-3381**
Fax: **(570) 924-3383**
e-mail: **johnlykens@screc.com**