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:_____

TYPE OF GENERATOR (as applicable)

Photovoltaic (Solar)	_____	Windmill	_____	Microturbine	_____
Diesel Engine	_____	Gas Engine	_____	Turbine	_____
Hydro	_____	Bio-gas	_____	Other	_____

ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION

The following information is necessary to help properly design the Cooperative customer interconnection. This information is not intended as a commitment or contract for billing purposes.

Electricity Use, Production and Purchases

(a) Anticipated annual electricity consumption of the facility or site:_____ (kWh)

(b) Anticipated annual electricity production of the generation system:_____(kWh)

(c) Anticipated annual electricity purchases (i.e., (a) minus (b): _____ (kWh)*

* Value will be negative if there are net sales to the Public Utility.

Mode of Operation

Isolated _____ Paralleling _____ Power Export _____

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.

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Estimated In-service Date: _____

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):_____
_____
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 ^oC): _____
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:

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