

Nueces Electric Cooperative

Application for Operation of Customer-Owned Generation

This application should be completed and returned with deposit (page 4) to the cooperative Customer Service representative 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

Owner/Member

Name: _____

Mailing Address: _____

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

Phone Number: _____ Representative: _____

Email Address: _____ Fax Number: _____

PROJECT DESIGN/ENGINEERING (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: _____

TYPE OF GENERATOR (as applicable)

Photovoltaic _____ Wind _____ Microturbine _____
Diesel Engine _____ Gas Engine _____ Combustion Engine _____
Other _____

ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION

The following information is necessary to properly design the Cooperative customer 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 _____

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Give a general description of the proposed installation, including the detailed description of its planned location, the data 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 specification on site: _____
Manufacture: _____
Type: _____ Date of Manufacture: _____
Serial Number (each): _____
Phases: Single Three Rpm: _____ 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: _____

INDUCTIONAL GENERATION 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: _____
 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.): _____
 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 (kV): _____ Rated Ampacity: _____
Interrupting rating (A) : _____ 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: _____
Bushong Current Transformer: _____ (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, transformer, 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. If the option of selling power to the Cooperative is exercised, there will be, in addition to the minimum monthly bill requirements under applicable service rate schedule(s), a customer service charge of \$12.00 per month for metering and billing.

END OF PART 2

Application Deposit

The customer shall be required to pay a minimum of not less than \$350 to cover cost of application review, location inspection, engineering analysis, and other pre-interconnection processes.

1. The deposit should be paid when completed Application for Operation of Customer-Owned Generation is delivered.
2. Upon Interconnection, the deposit shall be credited to any upgrades or new construction directly related to customer-owned generation source.
3. If, after completed of the engineering-related work, the customer does not proceed with the project, the work order will voided and the deposit will be retained by the Cooperative to cover the costs of all engineering work performed.

SIGN OFF AREA

The customer agrees to provide the Cooperative with any additional information required to complete the interconnection. The customer shall operate his/her equipment within the guidelines set forth by the cooperative.

Applicant

Date



ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative Contact: _____

Title: _____

Address: _____

Phone: _____

Fax: _____

e-mail: _____