



**APPLICATION FOR INTERCONNECTION & OPERATIONS OF
MEMBER-OWNED GENERATION**

This application should be completed and returned to Bandera Electric Cooperative, Inc. in order to begin processing the request for interconnecting Distributed Generation as required by the Cooperative’s Tariffs. See BEC Procedures and Guidelines Manual for Member-Owned Distributed Generation for additional information.

INFORMATION: This application is used by BEC to facilitate the determination of the required equipment configuration for the Member/Cooperative Point of Interconnection. Every effort should be made to supply as much information as possible.

PART 1 - OWNER/APPLICANT INFORMATION

Member Name: _____
Mailing Address: _____
City: _____ County: _____ State: _____ Zip Code: _____
Phone Number: _____ Representative: _____
Email Address: _____ Fax Number: _____
Proposed Location of Generator: _____
City: _____ County: _____

.....
PART 2 – PROJECT DATA

TYPE OF GENERATOR

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

ESTIMATED LOAD & GENERATOR RATING 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 (excluding any DG): _____ (kW)
% Residential: _____% % Commercial: _____% % Industrial: _____%



**Bandera Electric Cooperative, Inc.
Procedures and Guidelines for Member-Owned
Distributed Generation**

Proposed Number of Generating Units: _____ Generator Rating: _____ (kW)

Proposed Total DG Capacity to be Installed: _____ (kW)

Estimated Annual Generation Output: _____ (kWh)

(DG Facility will connect to the BEC System and will potentially export power to the electrical grid)

PROPOSED MODE OF DG OPERATION

Isolated: _____

Power Export: _____

Paralleling: _____

(DG facility will not connect in any way to the BEC system)

(DG facility will connect to the BEC system, but will not export power to the electric grid)

(DG facility will connect to the BEC system and will potentially export power to the electric grid)

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Provide 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. You may attach additional sheets if necessary.

Complete all applicable items. Copy sheets as required for additional generators.

SYNCHRONOUS GENERATOR DATA (as applicable)

Unit Number: _____ Total Number of Units with Listed Specifications on Site: _____

Manufacturer: _____ Type: _____

Serial Number: _____ Date of Manufacture: _____

Rated Output: kW: _____ kW Single Phase: _____ Three Phase: _____ Rated Power Factor: _____%

Rated Voltage (Volts): _____ V Rated Continuous Current: _____ Amperes R.P.M.: _____

Field Volts: _____ Field Amperes: _____ Motoring Power (kW): _____

Synchronous Reactance (X'd): _____ % on _____ KVA base

Transient Reactance (X'd): _____ % on _____ KVA base



Bandera Electric Cooperative, Inc.
Procedures and Guidelines for Member-Owned
Distributed Generation

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 (as applicable)

Rotor Resistance (R_r): _____ ohms Stator Resistance (R_s): _____ ohms

Rotor Reactance (X_r): _____ ohms Stator Reactance (X_s): _____ ohms

Magnetizing Reactance (X_m): _____ ohms Short Circuit Reactance ($X'd$): _____ ohms

Design Letter: _____ Frame Size: _____

Exciting Current: _____ Amperes 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.) _____

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.



*Bandera Electric Cooperative, Inc.
Procedures and Guidelines for Member-Owned
Distributed Generation*

GENERATOR FACILITY TRANSFORMER *(Between generator and utility system if applicable)*

Generator Unit Number: _____

Manufacturer: _____ Size (kVA): _____

Serial Number: _____ Date of Manufacture: _____

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): _____

POWER CIRCUIT BREAKER (if applicable)

Manufacturer: _____ Model: _____ Serial Number: _____

Rated Voltage: _____ kV Continuous Current Capability: _____ Amperes

Maximum Interrupting Rating: _____ Amperes BIL Rating: _____

Interrupting Medium / Insulating Medium (ex. Vacuum, Gas, Oil, etc.) _____ / _____

Control Voltage (Closing): _____ (Volts) ___ AC ___ DC

Close Energy: ___ Spring ___ Motor Hydraulic ___ Pneumatic Other: _____

Control Voltage (Tripping): ___ (Volts) ___ AC ___ DC ___ Battery ___ Charged Capacitor

Trip Energy: ___ Spring ___ Motor Hydraulic ___ Pneumatic Other: _____

Bushing Current Transformers: _____ (Max. ratio) Relay Accuracy Class: ___ Yes ___ No

Multi ratio? ___ Yes ___ No If Yes, Available Taps: _____

ADDITIONAL INFORMATION AND CONTACTS

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, transformers, 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. Also describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.), and its address or grid coordinates.



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: _____

PART 3 - SIGN OFF AREA

The Member agrees to cooperate with and provide to Bandera Electric Cooperative, Inc. any additional information required to complete the Member-Owned Generation Interconnection process. Further, the Member agrees they shall operate their equipment within the guidelines set forth by Bandera Electric Cooperative, Inc.

Member

Date

BANDERA ELECTRIC COOPERATIVE CONTACT FOR

APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative Contact: Manager, Engineering



*Bandera Electric Cooperative, Inc.
Procedures and Guidelines for Member-Owned
Distributed Generation*

Address:
3172 State Hwy 16 North
P.O. Box 667
Bandera, Texas 78003

Phone: 830-796-3741
Fax: 830-460-3030
Web site: www.banderaelectric.com

For BEC Use Only:

Date Application Initially Received by BEC: _____ By: _____

Application Fee Required? ___ No ___ Yes \$ _____

Application Fee Received? Amount: _____ Date: _____ By: _____

Date Application Deemed Complete: _____ By: _____

Project Proposed on Substation: _____ Feeder: _____