Poudre Valley REA
Your Touchstone Energy® Cooperative

www.pvrea.coop
1.800.432.1012

Application for Operation of Customer-Owned Generation

For Level II and Level III Small Generator Interconnection Process

This application should be completed and returned to the Member Relations Department to begin processing the request. A non-refundable processing fee will be submitted with this application.

INFORMATION: This application is used by Poudre Valley Rural Electric Association, Inc. to determine the required equipment configuration for the Member interface. Every effort should be made to supply as much information as possible.

MEMBER/APPLICANT INFORMATION

Name:_____
Mailing Address:_____
City:_____ State:_____ Zip Code:_____
Phone Number:_____ Representative:_____
Email Address:_____

PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Name:_____
Mailing Address:_____
City:_____ State:_____ Zip Code:_____
Phone Number:_____ Representative:_____
Email Address:_____

ELECTRICAL CONTRACTOR (as applicable)

Name:_____
Mailing Address:_____
City:_____ State:_____ Zip Code:_____
Phone Number:_____ Representative:_____
Email Address:_____

TYPE OF GENERATOR

Photovoltaic _____ Wind _____ Microturbine _____ Diesel engine _____ Gas Engine ____ Combustion Turbine _____
Other _____

July 2019
Version 1

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.

Total Site Load_____(kW)

Type of service (choose one): Residential ____ Commercial ____ Industrial ____

Generator Rating_____(kW) Annual Estimated Generation_____(kWh)

Mode of Operation (choose one): Isolated____ Paralleling____ Power Export only____

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.

GENERATOR INFORMATION

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(s):_____
Phase: Single____ Three ____ R.P.M.:_____ Frequency (Hz):_____
Rated Output (for one unit): _____kW_____ kVA
Rated Power Factor (%):_____Rated Voltage:_____ 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_____KVAbase
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 C°):_____
Reactive Power Required:_____Vars (no load)_____Vars (full load)
Additional information:

PRIME MOVER

Unit Number:_____ Total number of units with listed specifications on site:_____
Manufacturer:_____
Serial Number(s):_____ Date of manufacture:_____
H.P. Rated:_____H.P. Max.:_____Inertia Constant:_____lb.-ft.^{2}
Energy Source (hydro, steam, wind, etc.):

GENERATOR TRANSFORMER (between generator and utility system)

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

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

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___ or DC___
Control Voltage (Tripping):_____(Volts) AC___ or DC___ Battery___ or 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)_____

ADDITIONAL INFORMATION

In addition to the items listed above, please attach:

___ 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.,

___ Any other applicable drawings or documents necessary for the proper design of the interconnection.

Application for Operation of Customer-Owned Generation

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

Member/Applicant Date

PVREA CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION

Co-op contact:

Title:

Mailing address:

Phone:

e-mail:

Poudre Valley Rural Electric Association | 7649 REA Parkway | Fort Collins, CO 80528
1.800.432.1012 | Fax 970.282.6485 | www.pvrea.coop | energyresources@pvrea.coop