

**Central Valley Electric Cooperative, Inc.**

**Standard Interconnection Application  
Generating Facilities with rated capacities greater than 10 kW and less than 10 MW**

A customer-generator applicant (“Applicant”) hereby makes application to Central Valley Electric Cooperative, Inc. (“CVE”) to install and operate a generating facility with rated capacity greater than 10 kW interconnected with the CVE system.

Written applications should be submitted by mail, e-mail, or fax to CVE as follows:

Central Valley Electric Cooperative, Inc.  
PO Box 230, 1403 N. 13<sup>th</sup> Street, Artesia, NM 88211  
(575) 746-3571  
(575) 746-4219 fax  
CVE Contact: Russ McKee  
E-mail: [rmckee@cvecoop.org](mailto:rmckee@cvecoop.org)

An application is complete when it provides all applicable information required below. (Additional information to evaluate a request for interconnection may be required and will be so requested for the interconnection applicant by CVE after the application is deemed complete).

**Processing Fee:**

A fee of \$100 for generating facilities with a rated capacity greater than 10 kW and less than or equal to 100 kW must accompany this application. For facilities with a rated capacity greater than 100 kW and less than or equal to 10 MW, a fee of \$100 plus \$1 for every kW above 100 kW must accompany this application. Please attach a check made payable to CVE at the time of submittal.

**Section I. Applicant Information**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different than above): \_\_\_\_\_

Phone (daytime): \_\_\_\_\_ Phone (evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

CVE Account Number: \_\_\_\_\_

Type of Interconnection Service Applied for (choose one):

- Network Resource    Energy Only    Load Response (no export)    Net Metering

**Section II. Generator Qualifications**

Data apply only to the generating facility, not the interconnection facilities

Energy Source:  Solar  Wind  Hydro  Hydro Type (e.g. Run-of-River)\_\_\_\_\_

Diesel  Natural Gas  Fuel Oil  Other (state type)\_\_\_\_\_

Prime Mover:  Fuel Cell  Reciprocating Engine  Gas Turbine  Steam Turbine

Micro Turbine  Photovoltaic  Other (describe)\_\_\_\_\_

Type of Generator:  Synchronous  Induction  Inverter

Generator Nameplate Rating:\_\_\_\_\_kW (typical); Generator Nameplate kVA:\_\_\_\_\_

Interconnection Customer or Customer-Site Load:\_\_\_\_\_kW (if none, so state)

Typical Reactive Load (if known):\_\_\_\_\_

Maximum Physical Export Capability Requested:\_\_\_\_\_kW

List components of the Generating Facility Equipment Package that are currently certified:

<u>Equipment Type</u>	<u>Certifying Entity</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package?  Yes  No

Generator (or solar collector) Manufacturer, Model Name & Serial Number:\_\_\_\_\_

\_\_\_\_\_

Version Number:\_\_\_\_\_

Nameplate Output Power Rating in kW:\_\_\_\_\_ (summer)\_\_\_\_\_ (winter)

Nameplate Output Power Rating in kVA:\_\_\_\_\_ (summer)\_\_\_\_\_ (winter)

Individual Generator Power Factor:

Rated Power Factor: Leading \_\_\_\_\_ Lagging \_\_\_\_\_

Total Number of Generators to be interconnected pursuant to this Interconnection Application:

Elevation: \_\_\_\_\_ Single Phase: \_\_\_\_\_ Three Phase: \_\_\_\_\_

Inverter Manufacturer, Model Name & Serial Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment for software: \_\_\_\_\_

NOTE: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Application.

Generating Facility Characteristic Data (for inverter-based machines):

Max design fault contribution current: \_\_\_\_\_ Instantaneous or RMS: \_\_\_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-Up Requirements: \_\_\_\_\_

Generating Facility Characteristic Data (for rotating machine):

RPM Frequency: \_\_\_\_\_

Neutral Grounding Resistor (if applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I^2t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d$ : \_\_\_\_\_

Exciting Current: \_\_\_\_\_

Temperature Rise: \_\_\_\_\_

Frame Size: \_\_\_\_\_

Design Letter: \_\_\_\_\_

Reactive Power Required in Vars (not load): \_\_\_\_\_

Reactive Power Required in Vars (full load): \_\_\_\_\_

Total Rotating Inertia, H: \_\_\_\_\_ Per Unit of kVA Base

NOTE: Please contact Utility prior to submitting the Interconnection Application to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only:

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer’s block diagram may not be substituted.

**Section III. Interconnection Facilities Information**

Will a transformer be used between the generator and the point of customer coupling?  Yes  No

Transformer Data (if applicable for interconnection customer-owned transformer):

Is the transformer:  Single Phase  Three Phase Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ Percent On \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (if applicable for interconnection customer-owned fuse):

(Attach copy of fuse manufacturer’s minimum melt and total clearing time-current curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Load Rating (Amps): \_\_\_\_\_  
Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (if applicable):

If Microprocessor Controlled

List of functions and adjustable setpoints for the protective equipment or software:

Setpoint Function Minimum Maximum

- | <u>Setpoint Function</u> | <u>Minimum</u> | <u>Maximum</u> |
|--------------------------|----------------|----------------|
| 1. _____                 | _____          | _____          |
| 2. _____                 | _____          | _____          |
| 3. _____                 | _____          | _____          |
| 4. _____                 | _____          | _____          |
| 5. _____                 | _____          | _____          |
| 6. _____                 | _____          | _____          |

If Discrete Components:  
(Enclose copy of any proposed time-overcurrent coordination curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Style/Catalog No: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (if applicable):  
(Enclose copy off manufacturer's excitation and ratio correction curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Accuracy Class: \_\_\_\_\_ Proposed Ration Connection: \_\_\_\_\_

Potential Transformer Data (if applicable):  
(Enclose copy of manufacturer's excitation and ration correction curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

**Section IV. General Information**

Enclose copy of site electrical one line diagram showing the configuration of all generating facility equipment, current and potential circuits, and protection and control schemes.

This one line diagram must be signed and stamped by a licensed Professional Engineer if the generating facility is larger than 50 kW. Is one line diagram enclosed?  Yes  No

Enclose copy of any site documentation that indicates the precise physical location of the proposed generating facility (e.g. USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address). \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is available documentation enclosed?  Yes  No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable). Are schematic drawings enclosed?  Yes  No

**Section V. Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct. I also agree to install a Warning Label provided by CVE on or near my service meter location. Generating systems must be compliant with IEEE, NEC, ANSI, and UL standards, where applicable. By signing below, the Applicant also certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date \_\_\_\_\_

**Section VI. Information Required Prior to Physical Interconnection**

(Not required as part of the application, unless available at time of application).

Installing Electrician: \_\_\_\_\_ Firm: \_\_\_\_\_

License No.: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Installation Date: \_\_\_\_\_

Interconnection Date: \_\_\_\_\_

Signed (Inspector – if required): \_\_\_\_\_

Date: \_\_\_\_\_

(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached).