



APPLICATION FOR INTERCONNECTION OF DISTRIBUTED ENERGY RESOURCES

CUSTOMER/PRODUCER:

Name: _____

DER Site Address: _____

Account No.: _____

Telephone: (normal) _____ (emergency): _____

Information Prepared and Submitted By: _____

Name: _____

Address: _____

Email: _____

Signature: _____

Name of Customer or Customer's designated representative who can be contacted throughout ownership of DER system in case CPS Energy needs to contact this person at any time in case of emergency or important issues concerning the DER System.

Customer or Customer's designated representative: _____

Contact Number (24hrs. / 7days a wk.): _____

Email: _____

Installer/Contractor (if not same as above): _____

Contact Number (24hrs. / 7days a wk.): _____

Email: _____

The following information shall be supplied by the Customer or Customer's designated representative and/or contractor. All applicable items must be accurately completed in order that the Customer's generating facilities may be effectively evaluated by CPS ENERGY for interconnection.



GENERATION RESOURCE

Number of units/Configuration of modules: _____

Manufacturer: _____

Type (Synchronous, Induction, or Inverter): _____

Fuel Source Type (Solar, Natural Gas, Wind, etc.): _____

Kilowatt Rating (95° F at location): _____

Kilovolt-Ampere Rating (95° F at location): _____

Power Factor: _____

Voltage Rating: _____ Ampere Rating: _____

Frequency: _____ No. of Phases: _____

If the type is not an Inverter, provide RMS Symmetrical Short Circuit Current and X/R Ratio at Rated Voltage at point of common coupling for:

Line-to Ground Fault: _____ X/R _____

3-Phase Fault: _____ X/R _____



Supplemental Information

For installations that connect through an inverter, please provide the following information:

Inverter Manufacturer (Name) _____
Inverter Model (Name/Number) _____
Inverter Software Version (Number) _____

If this System's control and or protective functions are dependent on a "software" program supplied by the manufacturer of the equipment, please provide the version or release number for the software that will be used.

For non-inverter installations that plan to parallel continuously, please provide the following information for each generator:

Manufacturer: _____	Field Amps: _____
Type: _____	Field Volts: _____
Kilowatt Rating: _____	Motoring Power: _____
Kilovolt-Ampere Rating: _____	Serial Number: _____
Power Factor: _____	Gross Nameplate Rating: _____ kVA
R.P.M.: _____	Gross Nameplate Rating: _____ kW
Operating Voltage: _____	Net Nameplate Rating: _____ kW
Output Amperes: _____	Power Factor Rating: _____ %
Frequency: _____	PF Adjustment Range: _____ %
Number of Phases: _____	

Wiring Configuration

Single or 3-Phase Winding Configuration
(Choose One)

- 3 Wire Delta
- 3 Wire Wye
- 4 Wire Wye
- Single Phase 2 wire
- Single Phase 3 wire

Neutral Grounding System Used: (Choose One)

- Ungrounded
- Solidly Grounded
- Ground Resistor = _____ Ohms
Provide Grounding Transformer Data as well if applicable

For Synchronous Generators Only:

Synchronous Reactance: _____ % on _____ base
 Transient Reactance: _____ % on _____ base
 Sub-transient Reactance: _____ % on _____ base
 Negative Sequence Reactance: _____ % on _____ base
 Zero Sequence Reactance: _____ % on _____ base



For Induction Generators Only:

Locked Rotor Current: _____ Amps

-OR-

Stator Resistance: _____ Amps

Stator Leakage Reactance: _____ %

Rotor Resistance: _____ %

Rotor Leakage Reactance: _____ %

Short Circuit Current Produced by Generator: _____ Amps

For Generators that are Started as a “Motor” Only:

1. In-Rush Current: _____ Amps

2. Host Customer’s Service Entrance Panel (Main Panel) Continuous Current Rating: _____ Amps

For customers supplying an interconnecting transformer, please provide the following:

Transformer Connection and Grounding Information

Load Loss: _____ W

Percent Impedance: _____ %

Base kVA: _____ kVA

Voltage Ratings: _____ V

Tap Ratings: _____



CPS Energy DER Interconnection Settings Form

Instructions to Applicant: A list of CPS Energy interconnection protection requirements for voltage and frequency are given below. Please fill in the project name and requested information in Columns A and B, and the anti-islanding features in Section 3. **This form needs to be signed by the Applicant.** Note: If the DER system cannot be set to meet the listed requirement, fill in the closest available value (or fixed value) so that CPS Energy can evaluate the settings.

DER Project Name: _____

Prevention of Interference:

1. Voltage

CPS Energy Requirement Descriptor	CPS Energy Requirement	Column A: Setting Name	Column B: Setting Value
Over Voltage Regulation Set point #1	$\leq +5\%$		____%
Over Voltage Time Delay #1	$\leq 2 \text{ sec}$		____ sec
Under Voltage Regulation Set point #1	$\leq -10\%$		____%
Under Voltage Time Delay #1	$\leq 2 \text{ sec}$		____ sec
Over Voltage Regulation Set point #2	$\leq +10\%$		____%
Over Voltage Time Delay #2	$\leq 0.167 \text{ sec}$		____ sec
Under Voltage Regulation Set point #2	$\leq -30\%$		____%
Under Voltage Time Delay #2	$\leq 0.167 \text{ sec}$		____ sec

Note: “Over Voltage Regulation Set point #1” should not be greater than +5% because CPS Energy cannot subject other customers to voltage of +5-+10% for more than 30 seconds at PCC according to Texas PUC. If greater than +5% is desired, CPS Energy will require voltage calculations prior to approval of installation.

2. Frequency

CPS Energy Requirement Descriptor	CPS Energy Requirement	Column A: Setting Name	Column B: Setting Value
Over Frequency Set point	$\leq +0.5 \text{ Hz}$		____ Hz
Over Frequency Time Delay	$\leq 0.25 \text{ sec}$		____ sec
Under Frequency Set point	$\leq -0.7 \text{ Hz}$		____ Hz
Under Frequency Time Delay	$\leq 0.25 \text{ sec}$		____ sec

Note: Above set points are based on a nominal frequency of 60 Hz.



3. Anti-Islanding Protection

CPS Energy Instructions: Please describe the anti-islanding protection scheme, as well as, the worst-case time delay for shutting down the DER system. Indicate how long it takes the DER system to disconnect from the grid. Anti-islanding sensing must meet the NEC, IEEE 929 and UL 1741.

Customer Response:

By signing, the applicant certifies that the above information is true and accurate.

Signed by (Printed Name, Title/Position): _____

Signature: _____

Date: _____

CPS Energy Reviewer Comments:

CPS Energy Reviewer Name: _____

CPS Energy Reviewer Signature: _____

Date: _____