



Business/Commercial Solar Installation Application

PV Installation 1.0 kW - 1,000 kW **Form A**

FORM A - To be completed and signed by the Installing Contractor

SECTION ONE - General Information for PV Installations 1 kW – 1000 kW

All Roseville Electric Utility business Customer-Generators installing solar/photovoltaic (PV) generating systems at their business location, greater than 1.0 kilowatt (kW) CEC-AC rated but less than 1000 kilowatt CEC-AC rated of installed capacity, in parallel with Roseville Electric Utility’s electric service must complete or have their installer complete this application.

The Customer-Generator’s system shall at all times comply with Roseville Electric Utility’s [Rule 21](#) and [construction standards](#) as well as with all applicable laws, tariffs, electrical codes and applicable requirements of the City of Roseville.

Under no circumstance may the installed PV systems electric production in kilowatt hours (kWh) exceed 100% of the Customer-Generator’s most recent 12 month kWh consumption.

For customers who do not have the required 12 months of historical usage data Roseville Electric Utility may allow for up to 3 kWh per conditioned space. A property report will be required to verify the amount of conditioned space.

Roseville Electric Utility is a department of the City of Roseville and as such will be routed building improvement plans for review, comment and approval separate of the interconnection application process. It is recommend the utility interconnection application package be submitted directly to Roseville Electric Utility prior to building department permit plan submittal.

General Information for PV Installations Greater than 1000 kW or other Distributed Generation Installations

Do not complete this form for PV systems greater than 1000 kW CEC-AC rated system size (1.0 MW) or other non-solar distributed generation installations. Contact Roseville Electric Utility at 916-79-POWER to speak with an Energy Program Manager regarding the interconnection process.

Customer-Generator Information - Please complete ALL fields		
Name (as appears on electric bill)	Roseville Electric Utility Service Account #	
Installation Address (street and zip)	Telephone	E-Mail
Contract Type (submit signed copy of contract)		
Owned	Leased	PPA
Solar Lending Company / PPA Company / 3 rd Party Ownership Information (if applicable)		
Name of Company	Telephone	Fax
Mailing Address (street, city and zip)	City of Roseville Business License #	
Contact Name	Contact Phone	Contact E-Mail
Solar System Installer (Must be a contractor listed by Go Solar California!)		
Name of Company	Telephone	Fax
Mailing Address (street, city and zip)	City of Roseville Business License #	Contractor’s License #
Contact Name	Contact Phone	Contact E-Mail
Solar System Information		
Number of Panels	CEC AC System Watts	Estimated Installation Date
Is the proposed system an addition to an existing system?	When was existing system installed?	How many panels are on the existing system?

Energy Use Information (Select One)			
1. I have more than 12 months of energy use at this location and have completed and attached the usage report.	Total Annual kWh		
2. I have less than 12 months of energy use and am requesting authorization to use 3kWh per square foot as the basis for my system size. Attach your Home Energy Analyzer Report and the Property Report. (A X B = C)	(A) 3 kWh	(B) Conditioned Building Square Foot	(C) Eligible kWh Size
Description of Service		Check One Only	
A new solar energy system interconnecting to the existing electrical service.			
Physical changes to an existing interconnected solar energy system which was previously approved by Roseville Electric Utility (i.e. adding solar panels, changing inverters). Existing system details must be provided – the array plan and single line diagram must indicate existing and proposed system details and inverter and panel information.			
New construction; a new electrical service with a new interconnected solar energy system.			
Other: Please explain via a separate attached statement.			

SECTION TWO - Metering

Net Metering

- All PV systems seeking interconnection shall require a Roseville Electric Utility owned bi-directional net meter to be installed. This meter is capable of measuring electric flow both into the meter from the Roseville Electric Utility grid and out of the meter from the solar energy system (energy received and delivered).
 - The existing facility meter may not be a bi-directional net meter. As part of the application process, Roseville Electric Utility will assess the existing customer meter to determine if a net meter upgrade is necessary. If the existing meter does not have this capability, Roseville Electric Utility must upgrade the meter to the bi-directional technology.
 - If Roseville Electric Utility determines that a bi-directional net meter upgrade is required, per California state law, the cost of this upgrade is the responsibility of the Customer-Generator. If net metering upgrade charges apply they, will be included as fees collected in the permitting process.
 - The net meter charge is subject to change with wage adjustments, benefits multipliers and indirect charge multipliers changes. See the Business Solar Energy Program web page for the [current meter upgrade charge](#).
- The cost for this upgrade is the direct responsibility of the Customer-Generator and will be collected as part of the project permit process with the City of Roseville.

Power Production Metering

- To provide for utility distribution planning and operations, Roseville Electric Utility requires utility owned power production metering equipment to be installed for all customer owned commercial/business distributed generating systems. The bi-directional, revenue grade, power production meter will be provided and installed by Roseville Electric Utility. The production meter is capable of measuring the electric flow directly from the distributed generating solar energy system.
- All infrastructure/electrical equipment required to install the power production meter (such as meter socket, conduit and electric wires, etc...) will be the direct responsibility of the Customer-Generator, and shall be installed to comply with all current California and City building codes.

SECTION THREE - Equipment Information

Dedicated Customer Back Feed Breaker: All customer owned distributed generating systems shall be fed off a dedicated customer back feed breaker located within the main electrical panel as detailed in Roseville Electric Utility’s commercial construction standards.

AC Disconnect Switch: All installed PV systems in Roseville Electric Utility service territory shall have a PV AC disconnect device(s) installed within five feet of the meter panel, between the customer's breaker and inverter(s). The disconnect device(s) must be accessible at all times and shall be a "visible open" type device, meaning an air gap must be visible between the trailing edge of the moving contact and the stationary contact without the removal of the arc suppression cover. All disconnect devices shall be able to be locked in the

OPEN/OFF position. There will be a dedicated disconnect device for each inverter. See [Rule 21](#) and [Roseville Electric Construction standards](#) for details.

Batteries / Energy Storage: Energy storage interconnected in parallel, included those utilized to support solar electric generation systems are **NOT** categorized as a solar electric “System Component” by Roseville Electric Utility, and may be subject to charges as identified by City of Roseville Municipal Tariffs and/or Roseville Electric Utility construction standards. Electric generation systems utilizing energy storage technology will be subject to a “Supplemental Interconnection” process by Roseville Electric Utility.

SECTION FOUR - Interconnection Application Process

INTERCONNECTION

For commercial/business Customer-Generators requesting interconnection to Roseville Electric Utility several interconnection agreement documents are required to ensure safe and reliable operation of Roseville Electric Utility’s distribution system and to confirm that the Customer-Generator’s interconnection has been performed in accordance with Roseville Electric Utility’s tariffs, [Roseville Electric Utility Construction Standards](#) and [Rule 21](#). Failure to abide by these requirements could result in a PV system being locked off delaying interconnection approval. Customer-Generators should not delay sending any part of the submittal package to Roseville Electric Utility.

Submittal Package and Required Documents for Interconnection Applicants:

- Form A - A completed copy of the “Business/Commercial Solar Installation Application”
- A City of Roseville Building Permit
- CSI Standard PV Calculator Input and Results Printouts found at www.csi-epbb.com
- System drawings showing detail so as to satisfy Roseville Electric Utility Rule 21 and Commercial Construction Standards requirements.
 - The site diagram must include:
 - Site plan showing building roof areas with placement of PV panels, inverters, disconnect switches and other devices as well as the placement of the facility’s electric utility meter, disconnection, power production meter and the location of the telephone demark cabinet.
 - The general location of the Customer-Generator’s loads relative to the PV system and the interconnection with the utility’s distribution system.
 - The electrical one-line diagram must include:
 - The electrical rating and operating voltages of the significant electrical components such as the service panel, PV system breaker, PV system load, AC disconnect devices, PV production meter and phone line (required for systems larger than 250kW) or other components.
 - A description of how the power output from the inverter is connected to the main service panel via a branch breaker.
 - The ampere rating of this branch breaker and the main service panel breaker must be compatible with the output rating of the PV system. The output is computed based on the total nameplate rating of the inverter.
- Side and plan view drawings of the existing facility service entrance equipment and proposed PV system equipment including facility meter service panel, safety disconnect switches, PV production meter panel with phone line and other associated equipment. Include spacing measurements.

Applicants shall meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers and accredited testing laboratories such as Underwriters Laboratories. A Customer-Generator with a PV system that meets those standards and rules shall not be required to install additional controls and/or perform or pay for additional tests.

Prior to Installation:

- **Complete Form A Application** and submit to Roseville Electric Utility with the following documents:
 - Customer specific recent 12 month usage
 - Lease or PPA agreement (if applicable)
 - Equipment specification and equipment information
 - Array Layout Plan – include the physical location of the visibly open, lockable AC disconnect switch, inverters and displays, solar panels, circuit breakers and other protective devices

- CSI Standard PV Calculator printout (EPBB Report)
 - Values from the shading analysis can be filled out or customer may fill in “minimal shading”
 - Verify the annual kWh generated is less than the total of the most recent 12 months (kWh)
- **Single-line diagram** – include the electrical rating and operating voltages of the significant electrical components such as the service panel, breakers, subpanels, disconnect switches.

Upon Completion of the Installation:

- Contact Roseville Electric Utility to schedule PV inspection - 916-79-Power.
- Submit to Roseville Electric Utility a copy of the **signed Form B**.
- Submit to Roseville Electric Utility a copy of the **signed final approved permit card** from the City of Roseville Building Inspection.
- Contact Roseville Electric Utility to request permission to operate – 916-79-Power. Roseville Electric Utility will send a signed Interconnection Approval Form C once all program requirements and inspections have been approved by Roseville Electric Utility.
- Once the PV system is installed, **do not turn on the PV system until:** the bi-directional net meter has been installed, power production meter and phone line (PV systems sizes greater than 250kW only) have been installed, and the Form C – Interconnection Approval is signed by Roseville Electric Utility and received. Failure to do so may result in fines to the Customer-Generator for non-compliance.
- **Contractor to notify the customer:** they may not turn solar generation system on until they received a signed Interconnection Approval Form C from Roseville Electric Utility and the net meter has been installed – doing so before receiving written interconnection approval may result in fines to the customer.
- **Contractor to notify customer:** there will be a system performance inspection to verify proper system operation before permission to operate is approved. Roseville Electric Utility will send notification of this inspection via e-mail to the customer.

SECTION FIVE – Interconnection Compliance

- **Comply with all Rule 21, Roseville Electric Utility Construction Standards, Roseville Electric Utility Requirements for Interconnection and Access to Net Metering Tariffs Requirements**
- It is recommended that all applicants and their contractors obtain a copy of Roseville Electric Utility’s Rule 21 and the Commercial Construction Standards from Roseville Electric Utility’s web site (www.roseville.ca.us/electric) read and understand all interconnection requirements. Failure to abide by these requirements could result in a delay and/or rejection of permission to interconnect and delay and/or refusal to pay rebate. All installed PV systems must meet these requirements.
- **Access to Roseville Municipal Code PV Electric Net Meter Tariffs**
 - i. Qualified Customer-Generators applying for PV system installations will have access to the Roseville Municipal Code 14.24.051 Customer Owned Solar Generation Rates as a condition upon the system meeting all [Rule 21](#) and [Roseville Electric Utility Construction Standards](#) requirements.
 - ii. Failure to meet and/or maintain PV equipment and operational standards may result in the loss of access to PV net metering.
- **Permission to Operate or Interconnect**
 - i. **PV systems installed in Roseville may not operate in parallel with Roseville Electric Utility’s Distribution System without receipt of Form C “Approval to Interconnect”** Unauthorized parallel operation could result in injury to persons and/or damage to equipment and/or property for which the customer may be liable.
 - ii. **Safe Operation of the PV system:** Notwithstanding any other provision of this application, if at any time Roseville Electric Utility determines that either (a) the PV system, or its operation, may endanger Roseville Electric Utility personnel, or (b) the continued operation of the PV system may endanger the safe and reliable operation of Roseville Electric Utility’s electrical system, Roseville Electric Utility shall have the right to disconnect the PV system from their distribution system and such a PV system shall remain disconnected until such time as Roseville Electric Utility is satisfied that the unsafe conditions have been corrected.
- **Meter Access**
 - i. Additionally, unobstructed access to the electric meter must be provided at all times for meter reading and system maintenance. Keys must be provided for locked gates, doors or equipment.



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- **Document and Fee Requirements**
Other Documents and/or charges *may* be required and there may be requirements for interconnection in addition to the above list, depending on the specifics of the planned PV system. Other approvals and/or other agreements may be needed for special Roseville Electric Utility programs or regulatory agency requirements.
- **Billing and Net Metering Tariffs**
Please go to the Roseville Municipal Code for complete information: <http://qcode.us/codes/roseville/> or call 79- Power for assistance.

SECTION SIX - Document Submittal Contact Information

Email the required attachments and applications to commercialsolar@roseville.ca.us

Or Mail to: Roseville Electric Utility, ATTN: Business PV Application, 2090 Hilltop Circle Roseville, CA 95747

For questions or additional assistance, please contact Roseville Electric Utility (916) 79-POWER (797-6937) or commercialsolar@roseville.ca.us.

SECTION SEVEN – Terms and Conditions

- The undersigned declares under penalty of perjury that:
 - The site installation is located within the service territory of Roseville Electric Utility.
 - The above described PV system is intended primarily to offset part or all of the Applicant’s electrical needs at the site of installation.
 - The contractor agrees to abide by the terms set forth in the Roseville Electric Utility Commercial Construction Standards and Rule 21 for system interconnection with Roseville Electric Utility.
 - The contractor agrees the selection of the equipment is their sole responsibility. Roseville Electric Utility makes no representation as to the safety, reliability and/or efficiency of the equipment selected or components thereof.
 - Roseville Electric Utility makes no warranty, whether expressed or implied, including warranty of merchantability of fitness for any particular purpose, use or application of the equipment.
 - The information provided in this form is true and correct to the best of their knowledge.

Contractor will advise Customer-Generator they must not operate their solar energy until they receive the signed Interconnection Approval, Form C, from Roseville Electric Utility and the net and production meter have been installed.

Installing Contractor Signature

Installing Contractor Firm Name	Date
Installing Contractor Contact Name (PRINT)	
Installing Contractor Contact Signature	