Santa Clara City
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APPLICATION REQUIREMENTS FOR RENEWABLE NET METERING & INTERCONNECTIONS

Please read thoroughly all of the following information. With the help of your Installation Contractor, fully complete this Building Permit Application, all supporting documents, and the Santa Clara City Net Metering Agreement and submit to the Santa Clara City Building Department for review and approval.

Required Documents: **Initial**

1. Read and Agreed to Appendix 1 of this Application. _____
2. Read and Agreed to Appendix 2 of this Application. _____
3. Completed Building Permit Application. _____
4. Signed Net Metering Agreement. _____
5. All equipment, signage and installation practices must meet NEC codes 690 & 705. _____
6. One-page site map and system one-line diagram must accompany this application. This document must indicate the location of the solar electric modules, inverter, batteries (if any), lockable disconnect switch, and point of connection with the utility system. All electrical equipment specifications and calculations must be shown on the one-line. Any signs/labels should be shown with their respective calculated values on the one-line. The installation address, installer's name and telephone number must also be included. _____
7. All datasheets for the proposed equipment (solar panels, inverters, cable, etc.) must be included in the application as well as a structural load design and letter from a structural engineer licensed in the State of Utah. _____
8. Labels shall be phenolic where exposed to sunlight. Hand-written marker pen labeling is not allowed. Labels shall be red background with white lettering. Lettering must be at least 3/8" in height. Please see Appendix 2 for a complete list of labels. _____
9. The Production meter shall be located on the exterior of the building near the net meter. In addition, the production meter socket, shall be a Milbank 125-Amp Ringless Single Phase (12/240) or equivalent Meter Socket. _____

APPENDIX 1

Customer uses more energy from the City

If the energy supplied by the City exceeds the electricity generated by the Customer and fed back to the City during the billing period, or a portion thereof if during the first or last month of power service to Customer, then the Customer shall be billed for the net energy supplied to Customer by the City's electric distribution system together with the appropriate customer Base Rate Charge (paid by other customers of the City in the same rate class) as well as the Solar Reliability Charge.

Customer produces more energy than it uses from the City

If, in a given monthly billing period, a Customer supplies more electricity to the electric distribution system than the City delivers to the Customer, the City will credit the customer for the excess at the current Renewable Power Rate. The Customer is still responsible to pay the Base Rate Charge and the Solar Reliability Charge. If the credit for energy supplied to the City is greater than the Base Rate and the Solar Reliability Charge, the credit will be applied to their next billing period.

End of year credit

If a customer has a kWh credit at the end of the fiscal year (year ending in June), the City will issue a refund to the Customer for the kWh credit at the Renewable Power Rate available within thirty (30) days of the end of the billing cycle.

Solar Reliability Charge

The Solar Reliability Charge reflects both the Customer solar PV system inverter's continuous AC name plate rated kW capacity, and the cost per kilowatt-hour (kWh) for Santa Clara City to meet the full power demand of net-metered customers. First, the Customer's estimated monthly kWh solar generation is calculated by multiplying the total kW capacity of the Customer's system times 149 kWh (estimated average solar generation per kW capacity per month in Santa Clara). Second, Santa Clara City Utility determines its cost per kWh by dividing its total operation expense by the total kWh it purchases during a given period. The Customer's Solar Reliability Charge is then calculated by multiplying the Customer's estimated monthly kWh solar generation, times the City's cost per kWh. Both the estimated average solar generation per kW capacity per month for Santa Clara, and Santa Clara's per kWh cost will be reviewed annually and adjusted by the City as needed.

For example only:

kW Size	Monthly kWh * Charge	SRC
1 kW	1 * 149 = 149 kWh * $0.0272 =	$ 4.05
2 kW	2 * 149 = 298 kWh * $0.0272 =	$ 8.10
3 kW	3 * 149 = 447 kWh * $0.0272 =	$12.15
4 kW	4 * 149 = 596 kWh * $0.0272 =	$16.20
5 kW	5 * 149 = 745 kWh * $0.0272 =	$20.25
6 kW	6 * 149 = 894 kWh * $0.0272 =	$24.30
7 kW	7 * 149 = 1,043 kWh * $0.0272 =	$28.35
8 kW	8 * 149 = 1,192 kWh * $0.0272 =	$32.40

To find your SRC charge, take the total kW installed and multiply by 149 kWh, to get your total estimated kWh solar generation per month. Then multiply by the City's per kWh cost of $0.0272. In this example, the Solar Reliability Charge is $4.05 per kW capacity.

Renewable Power Rate

The renewable power rate is calculated from the weighted average cost of power Santa Clara City receives from its' energy sources. Additionally, the rate includes the cost of transmission, schedule, and reserves and factors in the Solar Reliability Charge. The renewable power rate will be review annually and adjusted as needed.

Santa Clara's Renewable Power Rate is $ .06 per kWh.

APPENDIX 2

Signs & Labels

NEC Article	Required Location for Label	Wording
690.5 (c)	Utility-interactive inverter, battery enclosure	"WARNING: ELECTRIC SHOCK HAZARD IF A GROUND FAULT IS INDICATED, NORMALLY GROUNDED CONDUCTORS MAY BE UNGROUNDED AND ENERGIZED"
690.10 (c)	Single source systems only	"WARNING: SINGLE SOURCE 120 VOLT SUPPLY, DO NOT CONNECT MULTI-WIRE BRANCH CIRCUITS"
690.14 (c)(2)	AC & DC disconnects	"PHOTOVOLTAIC SYSTEM DC DISCONNECT" "PHOTOVOLTAIC SYSTEM AC DISCONNECT"
690.17	Placed on the disconnect from the solar panels to the PV system	"WARNING: ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION."
690.35 (f)	For ungrounded systems. On each junction box, combiner box, and disconnect.	"WARNING: ELECTRICK SHOCK HAZARD. THE DC CONDUCTORSOF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MY BE ENERGIZED."
690.53	DC disconnects. This section must be completed if a main inverter system is being installed	"Operating current _____ Operating voltage _____ Maximum system voltage _____ Short circuit current _____ Maximum rated output current of the charge controller (if used) _____"
690.54	At the interactive points of interconnection, usually the main service	"Rated AC output current _____ Normal operating AC voltage _____"
690.56 (b)/ 705.10	At the electrical service and at the photovoltaic inverter if not located at the same location. Every effort should be made to have the inverter and AC & DC disconnect near the electrical service.	A directory providing the location of the service disconnect means and the photovoltaic system disconnecting means.
Utility Requirement	Back-fed panel boards, inverter output OCPD	"WARNING: INVERTER OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE"
Utility Requirement	On conduit, raceways, enclosures, mark every 10', at turns, above or below penetrations	"CAUTION: SOLAR CIRCUIT"
Utility Requirement	Main electrical service.	"WARNING: MULTIPLE SOURCES OF POWER. A PV SYSTEM IS PRESENT. DISCONNECT ALL POWER SOURCES BEFORE SERVICING"