



# City of Columbia Water & Light Interconnection & Net Metering Agreement Electrical Facility

Customer's Printed Name \_\_\_\_\_

Installation Street \_\_\_\_\_

Address Account Number \_\_\_\_\_

**Please note:** Columbia Water & Light can limit the number of interconnection agreements if the total of interconnected facilities already approved in a calendar year equals or exceeds 1% of the City's single-hour peak load for the previous year.

Whereas \_\_\_\_\_ (Customer) currently receives electricity from Columbia Water & Light (CWL) and wishes to interconnect an approved electric generating facility to CWL and sell electrical energy to CWL.

**NOW, THEREFORE, THE CUSTOMER AGREES:**

- 1. GENERATING FACILITY:** The solar powered generating equipment owned and operated by the customer or "The Facility" (as detailed on the form in this agreement) must be solely powered by solar energy and must have an electrical output that is compatible with the CWL electrical system as specified in Section 27-36, 27-105 and 27- 120 of the City of Columbia Code of Ordinances. The facility must be located on customer's premises and must be intended primarily to offset part or all of the customer's own electrical requirements.
- 2. CUSTOMER RESPONSIBILITIES:** Customer agrees to accept responsibility for the design, installation and operation of the facility. Customer agrees to obtain all necessary permitting including building permits from Columbia's Community Development Department's Building and Site Development Division prior to any construction or installation thereof. Customer agrees to bear all costs for equipment and labor to connect the facility to the CWL electric distribution system. Customer agrees to reimburse CWL for any and all losses, damages, claims, penalties, or liability that may arise from operations of the facility.
- 3. RENEWABLE ENERGY CREDIT:** These credits are defined in the Columbia Code of Ordinances 27-36. Customer grants CWL permission to use the renewable energy credits (REC) or attributes inherent in the electrical output from the facility. Customer agrees to not sell or transfer any renewable energy attributes arising from the electricity produced by the facility that would prevent or deter CWL from utilizing such renewable attributes. Solar customers can choose to retain their renewable energy credits and receive a lower payment for net energy.  
*Please see section 6 below.*
- 4. TERM:** This agreement shall commence on the completion of the final CWL inspection and shall remain in effect until terminated by either party upon thirty (30) days prior written notice, provided, however, that this agreement will terminate automatically upon:
  - a. Any change in ownership of the facility or the premises upon which the facility is located.
  - b. Any change in the size or nature of the facility or relocation of the facility at the customer's premises.
  - c. Any change of ownership of the location listed in this agreement (if customer is not an individual or family).
- 5. DEFINITION OF NET ENERGY:** Net energy is the difference in electrical energy supplied to the Customer from CWL's electrical supply system and the electrical energy supplied to CWL from the Customer, during any specific billing period. Net energy is measured in kilowatt hours (KWH).

**6. PRICE AND PAYMENT FOR NET ENERGY:** Customer shall be billed for net energy in accordance with the normal billing procedures set forth in the Customer's rate schedule. All energy supplied by the Customer will be credited at the rate per kilowatt hour agreed to in the following chart. The applicable rate will be decided by the Customer and approved by the CWL representative.

**CUSTOMER: SELECT APPLICABLE NET METERING RATE PREFERENCE (SELECT ONLY ONE)**

Customer's Initials	Type of Payment for NetEnergy
_____	For solar generated energy and the utility retaining the renewable energy credits, the Customer shall receive credit per kilowatt hour equal to the Customer's current applicable rate schedule.
_____	For solar generated energy with the Customer retaining the renewable energy credits, the Customer shall receive credit per kilowatt hour based upon the avoided average energy market price at the Columbia pricing node. This price will be adjusted each fiscal year based on the previous year's average.
_____	For non-solar renewable generated energy, Customer shall receive a rate credit based upon the avoided average energy market price at the Columbia pricing node. This price will be adjusted each fiscal year based on the previous year's average.

**NOTE**—for solar generators (with utility retaining the RECs): For billing periods in which the net energy is less than zero, credits for the amount of net energy shall be applied to the account. Credits can be carried over and applied to the next billing cycle except for the March billing in which any credits remaining after the March billing will be removed without compensation to the Customer.

**7. INTERCONNECTION STANDARDS:** Customer agrees that the generating facility complies with all applicable safety, performance, synchronization, interconnection and reliability standards established by the Missouri Public Service Commission, the National Electrical Safety Code, National Electrical Code, the Institute of Electrical and Electronics Engineers, and Underwriters Laboratories for distributed generation. The following standards shall also be met for solar systems:

- a. National Electric Code including but not limited to NEC Articles 690 (guidelines outlining the installation of the system including structural and electrical components) Section 690.12 (rapid shut down requirement) and NEC 705 – regarding the safety and warning signs of the system.
- b. Underwriters Laboratories (UL) including but not limited to UL 1741 (Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems) and UL 1703 (Standard for Safety: Flat Plate Photovoltaic Modules and Panels)
- c. Institute of Electrical and Electronics Engineers (IEEE) Standards including but not limited to 1547-2003 (Standard for Interconnecting Distributed Resources with Electric Power Systems)
- d. Customer's system shall contain a switch, circuit breaker, fuse or other easily accessible device or feature located in immediate proximity to the Customer's metering equipment that would allow a utility worker the ability to manually and instantly disconnect the generating facility from CWL's distribution system.

**8. OVER-CURRENT PROTECTION:** The Customer agrees to provide an over-current protective device at the service panel that is dedicated only to the facility and is capable of interrupting the maximum available fault current. The over-current protective device shall be clearly marked to indicate power source and the connection to CWL.

**9. DISCONNECTION:** The Customer agrees to install a manual, lockable, load-break disconnect switch with clear indication of the switch position in a location at or near the main point of service that is easily visible and accessible to CWL personnel. The disconnect switch shall provide a point of separation between the facility and the CWL electric system.

- 10. OPERATIONAL STANDARDS:** The Customer agrees to furnish, install, and operate all equipment required for the safe operation of the facility interconnected to CWL's electrical supply system without cost to CWL. This includes, but is not limited to, all equipment necessary to maintain automatic synchronism with CWL's electrical supply system and automatic disconnect between the facility and CWL's electrical supply system in the event of overload or outage of CWL's electrical supply system. The facility must be designed to operate within allowable operating standards for CWL's electrical supply system.
- 11. INSTALLATION AND MAINTENANCE:** Customer agrees to maintain all equipment on the Customer's side of the delivery point, including the required disconnect device, in satisfactory operating condition.
- 12. INDEMNITY, LIABILITY AND INSURANCE REQUIREMENTS:** The Customer agrees to hold harmless CWL for any damage to property as a result of any failure or malfunction thereof. CWL shall not be liable, indirectly or directly, for permitting or continuing to allow the interconnection of the facility or for the acts or misuse or omissions of the Customer or the failure or malfunction of any Customer-owned equipment that causes loss or injury, including death, to any party. Whenever any liabilities are incurred by either or both of the parties for damages caused by injuries to either party (or their employees or agents) or the property of either party, or caused by injuries to other persons on either party's property arising out of the subject matter of this agreement, then the liabilities for such damages between the parties will be as follows:
- a. Each party will be liable for all damages because of injuries to persons or property caused solely by its negligence or solely by its failure to comply with this agreement.
  - b. Each party will be liable for all damages to its own property that are caused by the concurrent negligence of both parties, or that are due to causes that cannot be traced to the sole negligence of the other party, to the extent of its negligence therefore.
  - c. Each party will be liable for all damages due to injuries to itself or its own employees or agents that are caused by the concurrent negligence of either party, or that are due to causes that cannot be traced to the sole negligence of either party; provided that in no event will a party be liable for damages because of injuries to itself or its own employees and agents in any amount in excess of applicable worker's compensation insurance and provided further that this agreement will in no way impair the right of the injured party or its employee or agent to the extent that a third party negligence approximately caused injuries or damages to party or its employee or agent.
  - d. In the event of claims brought to recover damages because of injuries to persons not employees of either party and because of injuries to property not belonging to either party that are alleged to be caused by the concurrent negligence of both parties or are alleged to be due to causes that cannot be traced to the sole negligence of either party, the parties agree no right of indemnification will exist, so that in all such claims, the issues of liabilities will be determined as a matter of contribution and not as a matter of indemnity.
  - e. Neither party will have any liability whatsoever for any special, indirect, consequential or punitive damages. Insurance: if the Customer's system is rated over 10 kilowatts then the Customer agrees to carry no less than \$100,000 of liability insurance that provides for the coverage of all risk of liability for personal injuries (including death) and damage to property arising out of or caused by the operation of the net metering unit.
- 13. PRE-OPERATION INSPECTION:** Prior to interconnection the Customer shall obtain an electrical permit from the City of Columbia allowing the attachment of the facility to the building's electric service. The facility and associated interconnection equipment shall be inspected and approved by a designated inspector of the City of Columbia prior to interconnection. Customer agrees to pay costs for the permit and inspection as required by the City of Columbia.
- 14. ACCESS:** Authorized CWL employees shall have the right to enter the Customer's property at any time for the purposes of inspection, operating the disconnect device or maintaining CWL property.

**15. ACKNOWLEDGMENTS REGARDING AGREEMENT:** By signing below, the Customer acknowledges that he/she understands and agrees to the terms of this Agreement and that the Customer may not connect the facility to CWL's electric distribution system until the Customer has received approval from the City of Columbia. CWL must approve of any changes that occur from what was submitted in the site diagram to what is installed at the site by the Customer. The Customer agrees to bear all costs for the equipment and labor to connect and install the facility to the CWL electric system. This agreement shall not be construed to imply a joint venture or partnership between the parties.

Customer's Printed Name \_\_\_\_\_

Customer's Signature \_\_\_\_\_

Date \_\_\_\_\_

# Columbia Water & Light Solar Powered Electric Generating Facility Information

**NOTE**—Along with the Interconnection and Net Metering Agreement, please include: SAM file, Solar Pathfinder report file, site picture with Pathfinder location, spec sheets for system components, and site diagrams before you proceed with your project. Columbia Water & Light reserves the right to deny a net metering agreement or rebate for systems not following utility guidelines.

If rebate funds are not available for the year:

I do not want to be on the rebate waiting list       I want to be added to the rebate waiting list

## Section 1: Customer Information

Utility Customer Account Number (from utility bill) \_\_\_\_\_  
 Name \_\_\_\_\_  
 Street Address \_\_\_\_\_ Zip \_\_\_\_\_  
 Mailing Address (if different from above) \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone Number \_\_\_\_\_ E-mail \_\_\_\_\_

## Section 2: Photovoltaic Net Metering Facility Information

PV Manufacturer/Model:		Inverter Manufacturer/Model:		
PV Module Location:		Inverter Nominal Power Rating:		
Manual Disconnect Location:		Inverter Location:		
Annual AC system output (kWh)	Watts/Module	# of Modules	Total Capacity (kW)	Baseline Rebate
Energy Yield (kwh/kW)	<b>1</b>	<b>2</b>	<b>3</b>	
Array capacity (kW)				

	Array				System	Rebate
	Tilt	Azimuth	% of total kW	Peak Factor	Baseline	
<b>1</b>			x	x	=	
<b>2</b>			x	x	=	
<b>3</b>			x	x	=	

Total =

## Section 3: Installation Information

Vendor Name \_\_\_\_\_ Daytime Phone \_\_\_\_\_  
 Installer Name \_\_\_\_\_ Daytime Phone \_\_\_\_\_

**For CWL use only**

Insurance needed?     Yes     No     Copy of insurance certification

Customer's rate classification     Residential     Small General     Large General     Industrial

Renewable Energy Credit (REC) Ownership     Utility Owned RECs     Customer Owned Rec's

Date Inspected \_\_\_\_\_ Staff inspector initials \_\_\_\_\_ Final Rebate \_\_\_\_\_

## **Columbia Water & Light Site Diagram or Net Metered PV Energy Systems**

*Please attach scale drawings and/or aerial images of the installation site with all arrays included in this project. Indicate location of meters, disconnects, breaker/fuse boxes, and direction of north.*