

CWLP SOLAR PROJECT INFORMATION SHEET

- **Contractor Step-by-Step Process for Solar Array Projects less than 25kW in CWLP Territory**
 - Contractor obtains the CWLP Solar Application Packet containing the Interconnection Agreement, Net Meter Contract, Solar Data Sheet, Approved Wiring Diagrams and Approved Meter Bases.
 - Contractor submits the following documents to the CWLP Solar Program Administrator:
 - Interconnection Agreement - filled out and customer signed
 - Net Meter Contract - filled out and customer signed
 - Solar Data Sheet
 - One-line drawing
 - A **\$400** check payable to CWLP for solar related charges should be submitted at this time (\$50 application fee, \$150 net meter, \$50 interconnection testing, \$150 installation of 2 meters). This check will be held by CWLP until installation of the two meters.
 - Contractor obtains proper permits through Springfield's Office of Building & Zoning (217-789-2171) or, if outside City limits, Sangamon County's Department of Zoning (217-753-6760), who shall establish that the facility meets local code requirements.
 - Contractor connects array according to CWLP approved drawings. If connection of the solar circuit is to be made inside the meter base of the billing meter, coordination with the CWLP Maintenance Supervisor (217-757-8520 x2209) is required at least 1 week ahead of time.
 - Once the solar array is operational, the contractor contacts the CWLP Solar Program Administrator (contact info below) to perform the required interconnection safety test. (This is different than the Zoning inspections, which also need to be scheduled.)
 - Upon passing the interconnection safety test, CWLP will send to both the contractor and customer a signed Permission to Interconnect Letter, and CWLP countersigned Interconnection Application and Net Meter Contract. The \$400 check will be processed and the billing net meter and the solar production meter will be installed within 2 weeks.
- CWLP provides the customer full retail rate for all solar production through the use of a net meter. If the array is producing more power than is needed in the building, the net meter increments in reverse. If the array produces more electricity than the building consumes during the billing period the customer is billed for zero (0) kWh and the excess is saved for future use. All saved excess production is lost after the March billing cycle every year.
- Projects **over 25 kW** require an additional \$300 Engineering Review and have different wiring requirements (contact Solar Program Administrator for drawings). Solar circuit must be connected to the line side of the revenue meter. Check required at time of Solar Application Packet submission.
- CWLP Solar Program Administrator contact and mailing information:
 - Scott Hanauer
1008 E. Miller St.
Springfield, IL 62702
217-789-2070 x2084
scott.hanauer@cwlp.com

APPLICATION FOR INTERCONNECTION**Customer Information:**

Customer Name _____

Contact Name _____

Phone _____

E-mail address _____

CWLP Account # _____

Service Address:
(address of customer generation)

Street _____

City, State _____

Zip _____

Billing Information: Check if same as Customer Info

First Name _____

Last Name _____

Phone _____

E-mail address _____

CWLP Account # _____

Billing Address:

Street _____

City, State _____

Zip _____

This contract is made and entered into this _____ day of _____,
_____, by and between the City of Springfield, Illinois, hereinafter referred to as City, and
_____ hereinafter referred to as Customer.

WITNESSETH:

WHEREAS, City owns and operates an electrical transmission and distribution system known as City Water, Light and Power, herein referred to as CWLP, serving the businesses and residences of the City of Springfield and certain environs, and

WHEREAS, Customer proposes to install on-site generation of less than 2500 kVa and the generation is described as

System Type _____ (Solar Photovoltaic (PV), Wind, Diesel, etc)

System Size _____ kW or kVA

, and

WHEREAS, Customer desires to operate and maintain an on-site generator interconnected to the CWLP electric system.

NOW, THEREFORE, for and in consideration of the premises and mutual undertakings hereinafter set forth, it is agreed by and between City and Customer as follows.

1. Interconnection of on-site generating facilities means service to an electric Customer under which the generating facilities on the Customer's premises shall be synchronized to CWLP distribution facilities.
2. Any costs CWLP incurs, including the addition of equipment necessary to facilitate the Customer's interconnection, shall be considered a supplemental facilities charge and shall be borne by the Customer.
3. The Customer's on-site generating facility shall abide by CWLP's *Rules and Specifications for Electric Service*.
4. The Customer shall hold the City harmless for any liabilities associated with the operation of the Customer's generating facilities.
5. The City has the right to terminate electric service or require the Customer to immediately disconnect the on-site generating facilities without advance notice or liability to the City if in the City's sole reasonable judgment and discretion, (a) continued electrical generation by the Customer may be dangerous to life, limb or property or jeopardizes operation of the City's electric system; (b) if there are replacements or significant alterations to the Customer's electric generating facilities ; (c) if failure of the Customer's generating facilities will cause disturbances to the City's electric system; (d) if the Customer's generating facilities cause any significant electric problems with any other City Customers; or (e) if the Customer violates any terms or conditions of this agreement or any applicable codes such as, but not limited to, National Electric Code (NEC) Article 690, Institute of Electrical and Electronic Engineers (IEEE) 929, IEEE 1547 or Underwriters Laboratories (UL) 1741.
6. This agreement shall remain in effect until canceled by the City or the Customer. There is no guarantee of interconnecting facilities in perpetuity.
7. Customer shall install a lockable, visible-break isolation device, such as an electric disconnect, of the appropriate ampacity in a readily accessible exterior location between the Customer's generator and the connection to CWLP's system. Customer shall allow City full access to the isolation device. The City has the right to temporarily lock the isolation device in the "off" position as part of necessary maintenance work performed by the City. During and after the City's necessary maintenance work the isolation device shall not be returned to the "on" position other than by an authorized City official.

8. All generating facilities shall be installed to current applicable NEC and IEEE standards. The Customer is required to submit evidence, to the City, of the following information in regards to the generator:
 - a. Compliance with IEEE 929 and/or UL 1741.
 - b. Design tests performed on the unit, in accordance with IEEE 1547.
 - c. Factory recommended field tests.

On-site generating facilities less than 250 kVA shall comply with the Periodic Interconnection Tests section in IEEE 1547. All interconnection-related protective functions and associated energy storage devices, such as batteries, shall be periodically tested at intervals specified by the manufacturer, system integrator, or the authority that has jurisdiction over the Distributed Resource interconnection; or all tests shall be performed at a minimum of every 3 years. Periodic test reports and/or an inspection log shall be maintained and shall be available to the CWLP T&D Engineering department upon request.

9. On-site generating facilities 250 kVA and above shall perform required tests on all interconnection-related protective functions and associated energy storage devices, such as batteries, on a yearly basis. Test reports shall be available to the CWLP T&D Engineering department upon request.
10. Customers having a three phase electric service with CWLP shall install a three phase generator.
11. CWLP has the right to inspect and approve the generator installation prior to interconnection. Customer shall not connect the generator to CWLP facilities prior to CWLP approval. CWLP shall witness an operational test of the interconnected facilities. An interconnect testing fee may be applicable.
12. After CWLP inspects and approves the Customer's generation facilities, alterations or modifications to the interconnected facilities are prohibited without prior approval from CWLP.
13. CWLP assumes no responsibility for the protection of the Customer's on-site generating facilities or any other portion of the Customer's electrical equipment.
14. Access to generator facility shall be available to CWLP at all times to conduct periodic inspections of the Customer's generating equipment.
15. Customer shall be liable for any damage caused to CWLP equipment or personnel as the result of any deviation from this agreement, or any other published standards such as, but not limited to, NFPA 70 NEC Article 690, IEEE 929, IEEE 1547 and UL 1741.
16. Renewable Energy Generators - Any renewable energy generator over 25kVA shall be subject to review and approval for installation by the CWLP T&D Engineering department. Customers are encouraged to supply drawings and specifications to CWLP prior to purchase and delivery of equipment.

17. This Agreement does not create rights, remedies, or benefits whatsoever in favor of any persons, corporations, associations, or entities other than the Parties. The obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

18. A \$300 application fee (in the form of a check or money order) is required for all customers with renewable generation in excess of 25kVA.

BY:

Customer

Date: _____

Superintendent Electric T & D Engineering
City Water Light and Power
City of Springfield, IL

Date: _____

CONTRACT FOR NET METERING

Contract Number:

Customer Information

Name _____

Address _____

City _____

Zip Code _____

Phone number _____

Account Number: _____

This contract is made and entered into this ____ day of _____, _____, by and between the City of Springfield, Illinois, hereinafter referred to as City, and _____ hereinafter referred to as Customer.

WITNESSETH:

WHEREAS, City owns and operates an electrical transmission and distribution system know as City Water Light and Power, herein referred to as CWLP, serving the businesses and residences of the City of Springfield and certain environs, and

WHEREAS, Customer proposes to install a renewable generator of either less than 25 KW or meeting CWLP engineering review, and is described as _____, and

WHEREAS, City is willing to net meter said interconnected renewable generator, all in accordance with the terms and provisions hereinafter set forth.

NOW, THEREFORE, for and in consideration of the premises and mutual undertakings hereinafter set forth, it is agreed by and between the City and Customer as follows.

1. Customer understands that any costs CWLP incurs associated with the net metering program shall be borne by the participants in the net metering program, some of these costs are billed on a monthly basis. Also, any additional facilities necessary to accommodate net metering Customer’s may require a supplemental facility charge.
2. The Customer’s generating facility must also abide by CWLP’s Rules and Specifications.

3. It is also understood that Customer generated energy in excess of the energy required by the Customer's load during a billing period shall be carried forward to the next billing period. Upon closing of an account Customer's shall surrender to CWLP any excess energy. Under no circumstances will there be payments, or credit transfers, for excess energy.
4. The Customer understands that CWLP is to be held harmless for any liabilities associated with the operation of the Customer's generating facilities.
5. Customer understands the terms and conditions of net metering are governed by the City, and are subject to change. The initial term of this agreement shall be one year, and shall remain in effect until canceled by the City or the Customer. There is no guarantee of net metering in perpetuity.

BY:

Customer

Date: _____

Superintendent Electric T & D Engineering
City Water Light and Power
City of Springfield, IL

Date: _____



CWLP Solar Data Sheet



Submit this completed form along with a filled out and customer signed Interconnection Agreement and Net Meter Contract and a one-line drawing to: CWLP Solar Program Administrator, 1008 E. Miller St., Springfield, IL 62702, scott.hanauer@cwlp.com.

A **\$400** check payable to CWLP should be submitted by mail at this time (\$50 application fee, \$150 net meter, \$50 interconnection testing, \$150 installation of meters). This check will be held by CWLP until project completion.

Customer Information

Customer Name	
Contact Name (If Different)	
Contact Phone	
Customer Contact Email Address	
Service Address (Where Array is to be Installed)	

Solar Company Info

Electrical Contractor Info

	Company Name	
	Company Contact Name	
	Contact Phone	
	Contact Email Address	

PV Module Information

PV Module Manufacturer		PV Module Model Number	
PV Module Wattage		Number of PV Modules to be Installed	
Total Array Size (kW)			

Inverter Information

Inverter Manufacturer		Inverter Model Number	
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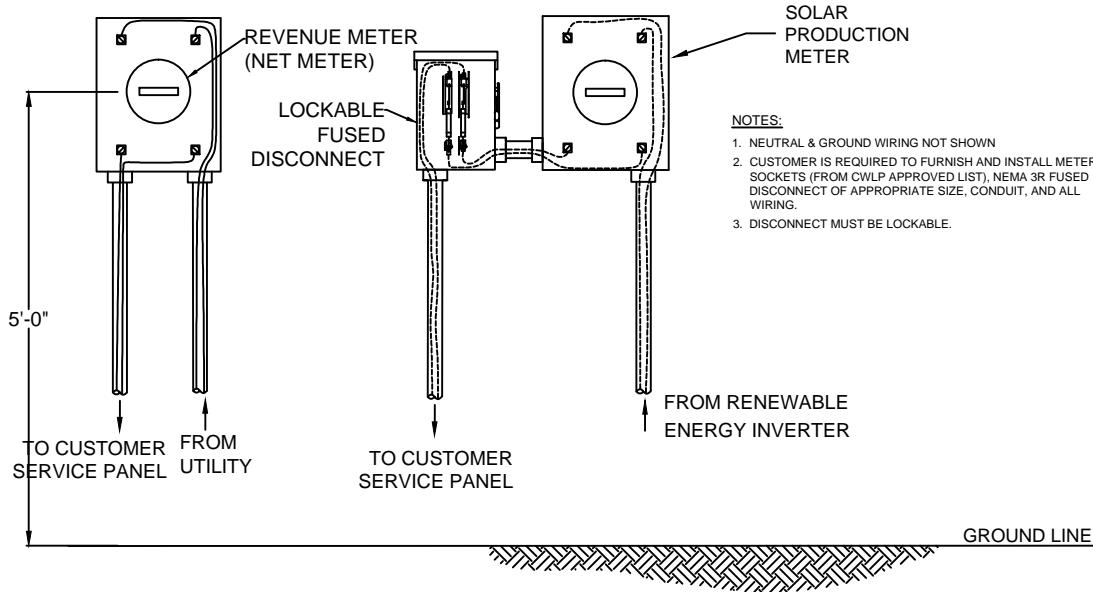
Name of Person Submitting Form

Date

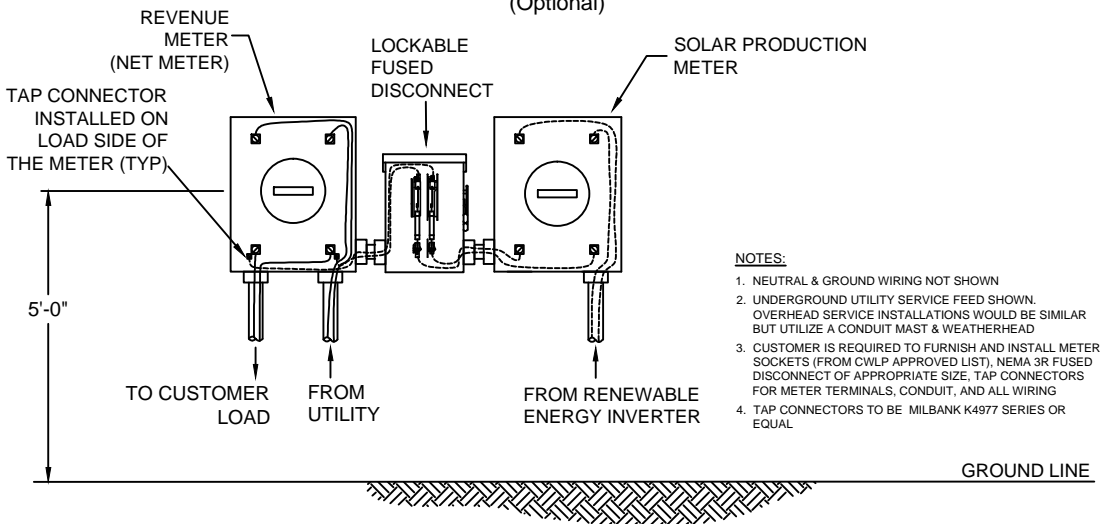
After the PV array is installed and fully operational you must contact the CWLP Solar Program Administrator to conduct the interconnection test of the system. This test ensures that the system will not energize utility wires during a power outage. The system should be left in fully operational mode with the disconnect in the OFF position.

For Office Use Only: Acct # _____ Rate _____ Phase _____

200 AMP SERVICE
(PREFERRED, ACCEPTABLE FOR 320 AMP APPLICATIONS)



200 AMP SERVICE
(Optional)



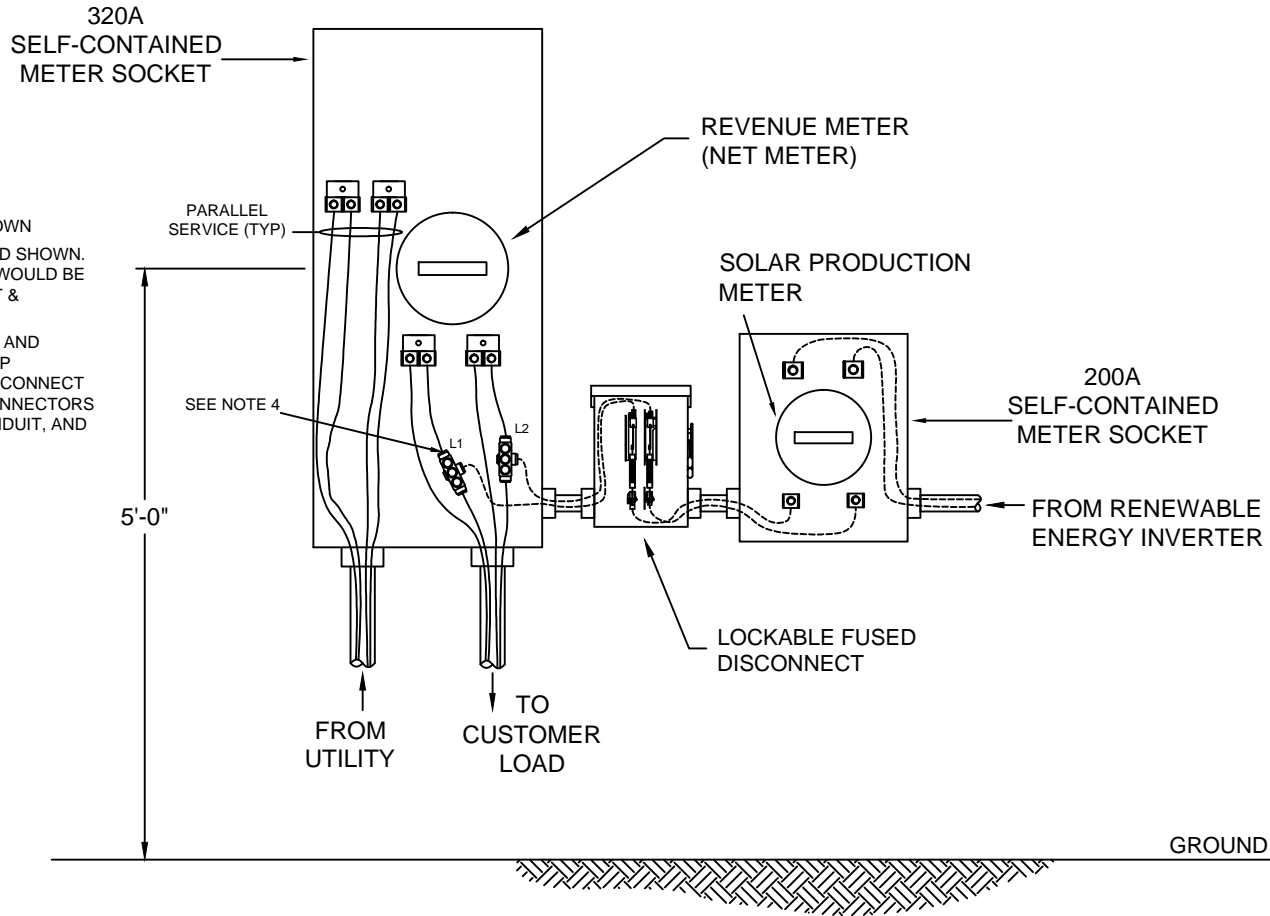
SOLAR INTERCONNECTION WIRING
SINGLE PHASE, 200 AMP SERVICE FOR 25 KW AC OR
SMALLER SOLAR ARRAY

CONST. NO.

CITY WATER LIGHT & POWER
SPRINGFIELD ILLINOIS

SCALE: NONE	DATE	SUPERSEDES	FILE NO.
DRAWN BY: GH/DSM	05-19	CHECKED BY	D-4000
REV# 1	11-19	APPROVED BY R.Meadows	

400 AMP SERVICE



NOTES:

1. NEUTRAL & GROUND WIRING NOT SHOWN
2. UNDERGROUND UTILITY SERVICE FEED SHOWN. OVERHEAD SERVICE INSTALLATIONS WOULD BE SIMILAR BUT UTILIZE A CONDUIT MAST & WEATHERHEAD
3. CUSTOMER IS REQUIRED TO FURNISH AND INSTALL METER SOCKETS (FROM CWLP APPROVED LIST), NEMA 3R FUSED DISCONNECT OF APPROPRIATE SIZE, MULTI-TAP CONNECTORS OF APPROPRIATE SIZE & RATING, CONDUIT, AND ALL WIRING
4. MULTI-TAP CONNECTORS SHALL BE UTILCO/ILSCO TEE TAP CONNECTORS #PBTT-3-350-F OR APPROVED EQUAL

**SOLAR INTERCONNECTION WIRING
SINGLE PHASE, 400 AMP SERVICE FOR 25 KW AC OR SMALLER SOLAR
INSTALLATIONS**

CONST. NO.

CITY WATER LIGHT & POWER
SPRINGFIELD ILLINOIS

SCALE: NONE

DATE

SUPERSEDES

FILE NO.

DRAWN BY: GH/DSM

05-19

CHECKED BY

D-4001

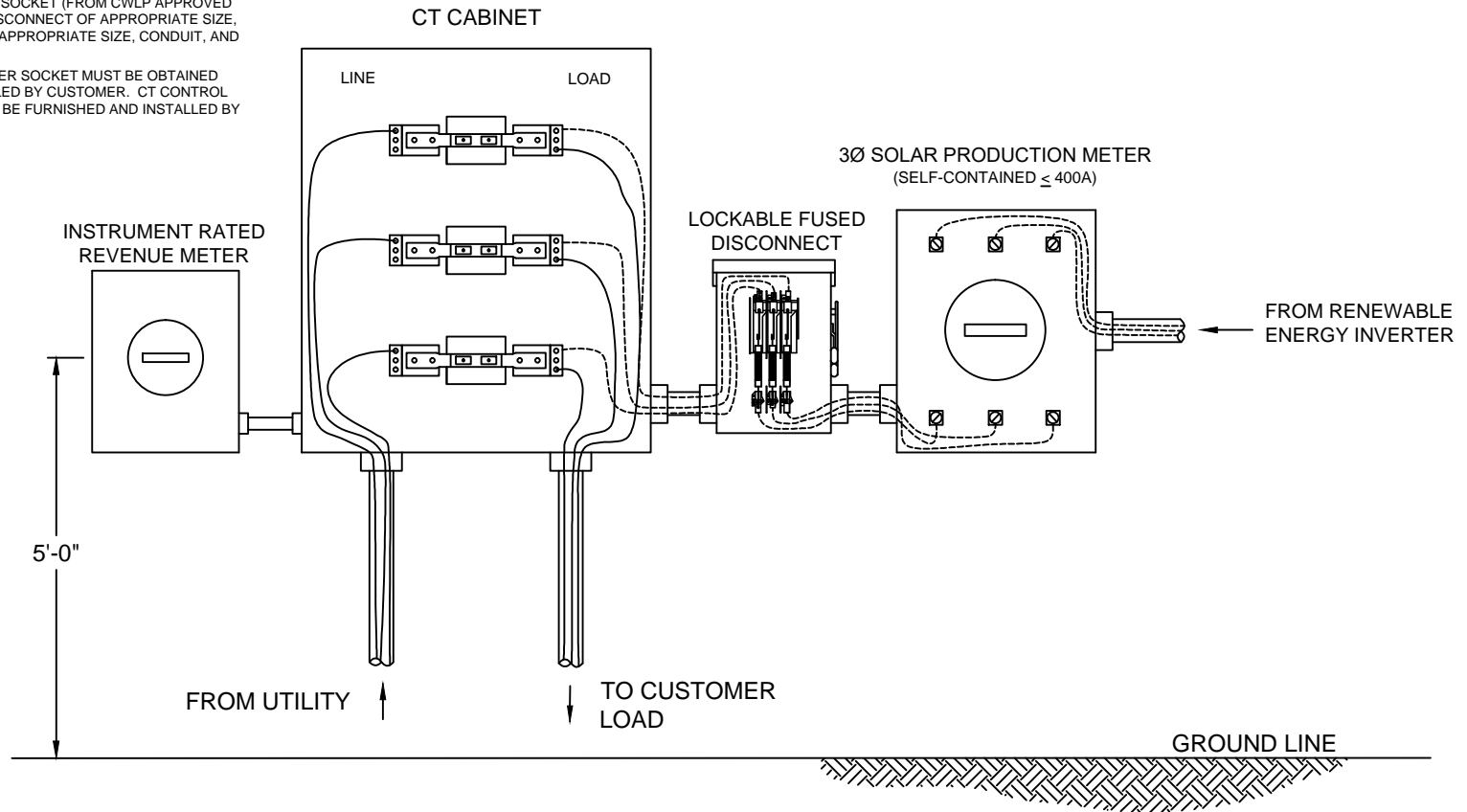
REV# 1

11-19

APPROVED BY R.Meadows

NOTES:

1. NEUTRAL & GROUND WIRING NOT SHOWN
2. UNDERGROUND UTILITY SERVICE FEED SHOWN. OVERHEAD SERVICE INSTALLATIONS WOULD BE SIMILAR BUT UTILIZE A CONDUIT MAST & WEATHERHEAD
3. CUSTOMER IS REQUIRED TO FURNISH AND INSTALL SELF-CONTAINED METER SOCKET (FROM CWLP APPROVED LIST), NEMA 3R FUSED DISCONNECT OF APPROPRIATE SIZE, NEMA 3R CT CABINET OF APPROPRIATE SIZE, CONDUIT, AND SERVICE WIRING
4. INSTRUMENT RATED METER SOCKET MUST BE OBTAINED FROM CWLP AND INSTALLED BY CUSTOMER. CT CONTROL WIRING (NOT SHOWN) TO BE FURNISHED AND INSTALLED BY CWLP.



**SOLAR INTERCONNECTION WIRING THREE PHASE
COMMERCIAL SERVICE w/ CT CABINET SELF-CONTAINED
SOLAR METER FOR 25 KW AND SMALLER SYSTEMS**

CONST. NO.

**CITY WATER LIGHT & POWER
SPRINGFIELD ILLINOIS**

SCALE: NONE	DATE	SUPERSEDES
DRAWN BY: GH/DSM	05-19	CHECKED BY
REV# 1	12-19	APPROVED BY R.Meadows

FILE NO.
D-4010



CWLP Approved Meter Sockets

Residential Service

WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	AMPACITY	INSTALLATION TYPE	BYPASS	MANUFACTURER	CATALOG#	#OF TERMINALS	HUB SIZE	DIMENSIONS (WxHxD) (in)
3	1	125A	120/240	Residential	125A	Self-Contained OH Only	Lever	Millbank	U6193-RL-QG-AMS	5	1-1/4"	10"x18.5"x4.84"
3	1	125A	120/240	Residential	125A	Self-Contained OH Only	Lever	Millbank	U3505-DL-TG-HSP	5	2"	10"x18"x4.78"
3	1	200A	120/240	Residential	200A	Self-Contained UG/OH	Lever	Millbank	U9551-EL-TG-5T9	5	2-1/2"	13"x19"x 4.78"
3	1	200A	120/240	Residential	200A	Self-Contained UG/OH	Lever	Millbank	U9551-XL-TG	5	2-1/2"	13"x19"x4.875"
3	1	200A	120/240	Residential	200A	Self-Contained UG/OH	Lever	Eaton	UTTE5213BCH	5	2 1/2"	13.5"x20.5"x6"
3	1	200A	120/240	Residential	200A	Self-Contained UG/OH	Lever	Cutler-Hammer	UTH5213B	5	2-1/2"	13"x19"x5"
3	1	320A	120/240	Residential	320A	Self-Contained	Lever	Cutler-Hammer	UTH4330UCH	4	3-1/2"	36.6x15x5.7
3	1	100/125A	120/240	Residential	100/125A	Residential 2-Gang Horizontal	Lever	Landis & Gyr	UA4X11-ZG	4	2-1/2"	43.2x17.4x4.9
3	1	150A	120/240	Residential	150A		Lever	Millbank	U1234-X-HSP	4	2-1/2"	42.8x16x5.2
3	1	200A	120/240	Residential	200A		Lever	Millbank	U2734-XT--HSP	4	2-1/2"	42.2x25.25x6

Commercial Service

WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	AMPACITY	INSTALLATION TYPE	BYPASS	MANUFACTURER	CATALOG #	# OF TERMINALS	HUB SIZE	DIMENSIONS (WxHxD) (in)
3	1	200A	120/240	Commercial	200A	Self-Contained	Lever	Cutler-Hammer	UTTE4213UCH	4	4	19x13x5
4	3	200A	120/240	Commercial	200A	Self-Contained	Lever	Cutler-Hammer	UTH7213CCH	7	2.5	19x13x5
3	1	200A	120/240	Commercial	200A	Self-Contained	Lever	Milbank	U9551-RXL-QG	5	4	19x13x5
4	3	200A	120/240	Commercial	200A	Self-Contained	Lever	Milbank	U9701-RXL-QG	7	4	19x13x5
3	1	320A	120/240	Commercial	320A	Self-Contained Offset	Lever	Cutler-Hammer	UTH4338UCH	4	3.5	36.6x15x5.7
3	1	320A	120/240	Commercial	320A	Self-Contained Offset	Lever	Milbank	U5161-X-2/K2L	4		15x30x5
3	1	320A	120/240	Commercial	320A	Self-Contained Offset	Lever	Siemens	S48104-02	4	HD CL plate	31x16.2x5
3	1	320A	120/240	Commercial	320A	Self-Contained	Lever	Milbank	U1079-X-QG-K3-K2	4	4	38.75x13x5
4	3	320A	120/240	Commercial	320A	Self-Contained Offset	Lever	Cutler-Hammer	1008799CH	7	4	39.9x20x6.5
4	3	320A	120/240	Commercial	320A	Self-Contained	Lever	Milbank	U4911-X-QG-BL w/K4802 kit	7	4	38.75x17.75x6.5
4	3	320A	120/240	Commercial	320A	Self-Contained Offset	Lever	Milbank	U2594-X	7	4	17.75x34.125x6.5
4	3	320A	120/240	Commercial	320A	Self-Contained Offset	Lever	Milbank	U2120-X	7	4	17.75x31.75x6.5
4	3	200A	120/240	Commercial	200A	Self-Contained	Lever	Milbank	U2732-XT	7	2.5	25.25x32x5

City Water, Light & Power, Electric Engineering, 1008 E. Miller St, Springfield, IL 62702, Ph 321-1350, Email ElecEng.Rep@cwlp.com