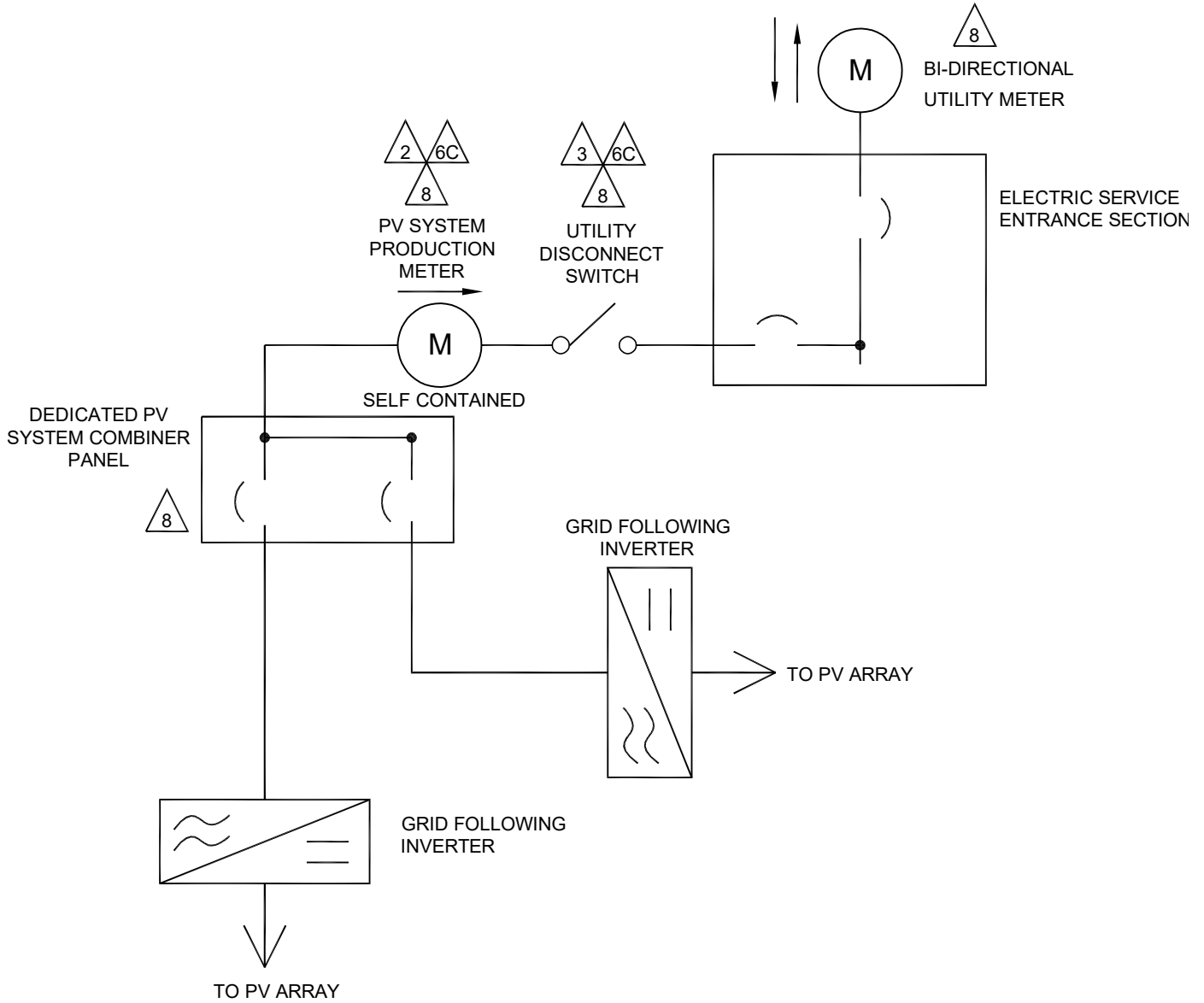


**FIGURE ILLUSTRATES REPRESENTATIVE CONCEPTS & INTENT**

- PROPRIETARY INVERTER ISOLATION/CONTROL EQUIPMENT. MAY VARY DEPENDING ON TECHNOLOGY (INSIDE PANEL OR SEPARATE DEVICE).
- APS DOES NOT PERMIT BACKFEEDING THE GRID WITH BATTERY ENERGY IRRESPECTIVE IF ENERGY TO CHARGE THE BATTERY ORIGINATED FROM APS.
- **FOR SYSTEMS THAT PROVIDE LOAD SHIFTING/PEAK SHAVING (OF CUSTOMER USAGE), DER SYSTEMS ARE REQUIRED TO SHUT-DOWN DURING A GRID OUTAGE**
- **THESE CONCEPTUAL DRAWINGS PROVIDE TYPICAL ISOLATION AND METERING EQUIPMENT ONLY.**



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MFM	FC		12-27-18	A

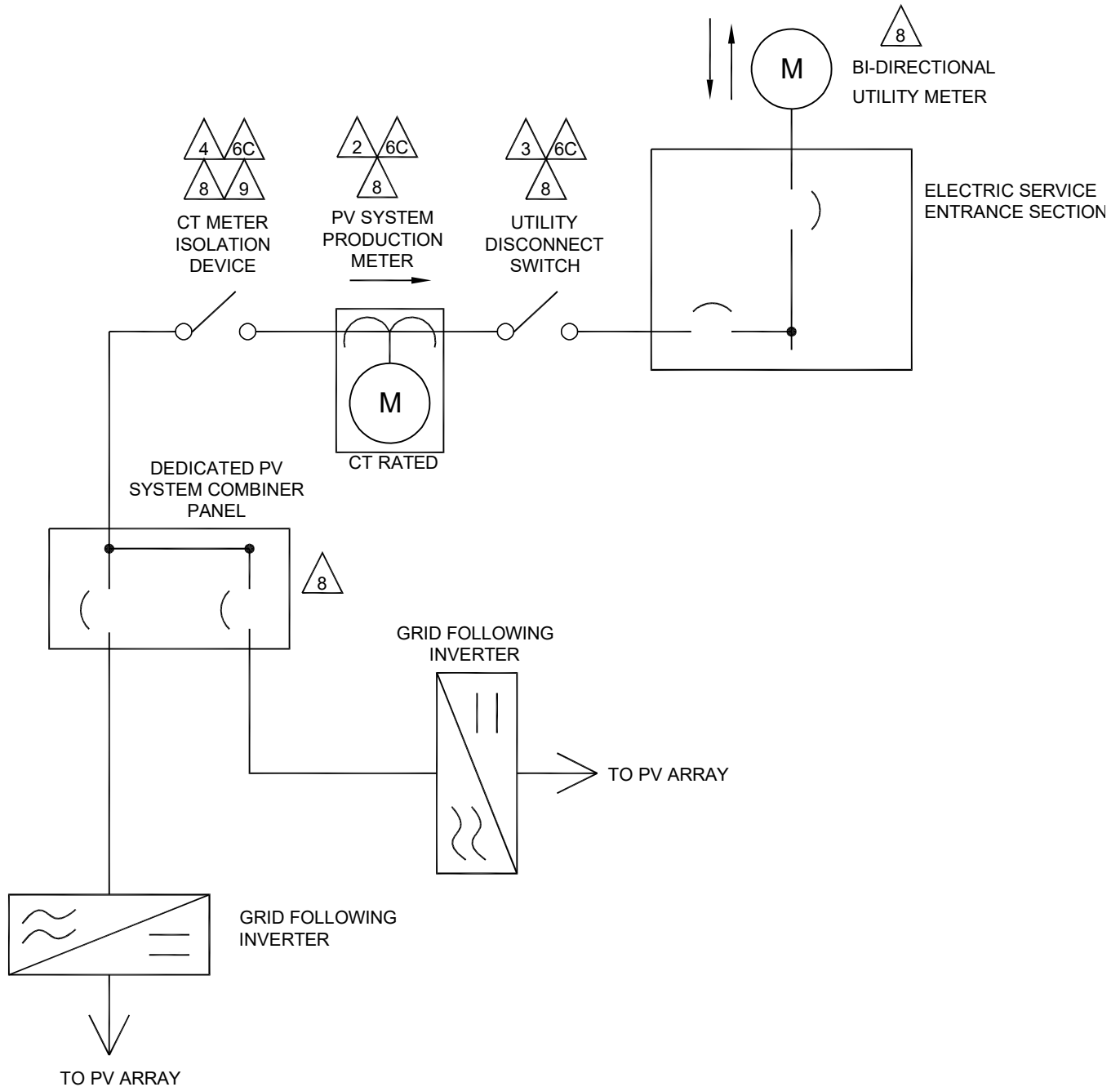
**SAMPLE RESIDENTIAL/SMALL COMMERCIAL PV SYSTEM CONFIGURATION**

8.5" x 11"

Sht. 1 of 2

**FIGURE ILLUSTRATES REPRESENTATIVE CONCEPTS & INTENT**

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**SAMPLE CT RATED COMMERCIAL PV SYSTEM CONFIGURATION**

8.5" x 11"

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NOTES

1. All Customer equipment shall be installed and maintained by the Customer in accordance with the local AHJ, NEC and APS. If no jurisdictional authority is responsible, a Letter In-Lieu of Electrical Clearance shall be required following completion of all work.
2. The output of multiple PV System inverters shall be combined before connecting to the dedicated PV kWh meter such that each billing meter is to have only one dedicated PV System kWh meter and associated disconnect switch used to isolate the entire system.
3. The utility AC disconnect switch shall be connected between the Electric Service Entrance Section (SES) and PV system as shown. A Customer-fused disconnect switch required for residential and commercial PV systems, with a short circuit rating greater than 10 kA, shall be connected between the SES and utility AC disconnect switch.

Utility AC disconnect switch, NEMA 3R or better, shall be visual open in accordance with Section 8.2 of the APS Interconnection Requirements with provisions for locking the door closed and locking the operating handle (blades) open with an APS lock only.

4. For CT Rated PV systems, a CT meter isolation device shall be connected between the production meter and the Dedicated PV System Combiner Panel (or PV System Inverter if only one Inverter present). The CT meter isolation device, NEMA 3R or better, shall include locking provisions per OSHA LOTO Requirements with an APS pad lock.
5. The SES, utility AC disconnect switch, production meter socket and CT meter isolation device shall be grouped together within a maximum distance of 10' with no obstructions and Readily Accessible per APS Requirements.

EXCEPTION: If conditions prohibit grouping the utility AC disconnect switch, production meter socket and CT meter isolation device within 10' of the SES, the production meter socket and associated AC disconnect switch and CT meter isolation device may be remotely located; however, APS approval is required. The remote location must be Readily Accessible location per APS Requirements. The SES shall have signage indicating an interconnected generator, specific location of the AC disconnect switch, the production meter socket and CT meter isolation device as applicable.

The utility AC disconnect switch, production meter socket and CT meter isolation device shall be a minimum 36" from any natural gas vent in accordance with the APS ESRM, Section 301.15.

If the SES is upgraded, a new SES may require relocation. Consult an APS Design representative.

6. Customer shall provide the following to APS:

A. Site plan indicating location of the SES, utility AC disconnect switch, production meter socket and CT rated isolation device (if applicable).

B. Three line diagram including interconnection of the SES

C. Manufacturer data including model number and specifications for the following equipment:

1. Inverter (must comply with UL1741/UL1741SA latest version)
2. Production meter sockets
3. Utility AC disconnect switch
4. CT rated isolation device
5. Customer-fused disconnect switch, if installed (separate from utility AC disconnect switch(es))
6. Supply side tap apparatus & compliance information (Refer to Section 8.1F of the APS Interconnection Requirements)

Specifications shall include all ratings, NEMA enclosure codes (3R or better), and short-circuit ratings (AC disconnect for supply side taps shall be equal to or greater than the SES rating).

7. Additional requirements apply for systems 1000kW and greater. Refer to Section 11 and 12 of the APS Interconnection Requirements.

8. Labeling requirements per Section 8.6 of the APS Interconnection Requirements.

9. APS would consider eliminating the load side CT Rated Meter Isolation Device if the Dedicated PV Combiner Panel was located within the same work space (~10') as the CT Rated Metering Enclosure, breakers (within Dedicated PV Combiner Panel) were 24-7 accessible, and breakers included locking provisions per OSHA LOTO requirements with an APS Padlock.



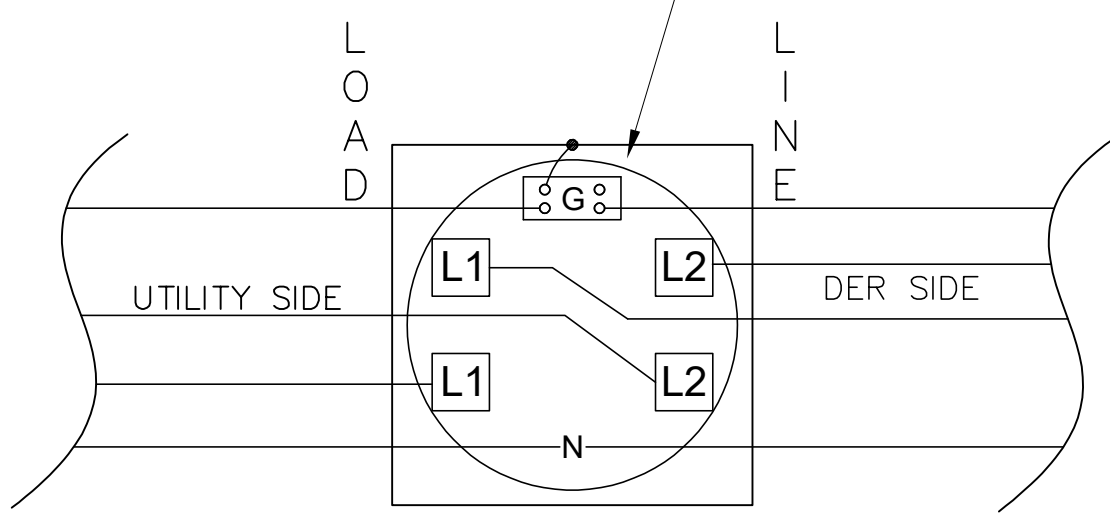
ARIZONA PUBLIC SERVICE COMPANY

PV SYSTEM CONFIGURATION  
NOTES


8.5" x 11"

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LINE SIDE (TOP) TERMINALS  
 CONNECT PHASE "A" TO THE LEFT  
 ELEMENT (TERMINAL) OF THE METER  
 [LOOKING AT THE FRONT OF THE METER]



PHOTOVOLTAIC/ENERGY STORAGE  
 PRODUCTION METER  
 [SPECIFY FORM #, MAKE & MODEL #]  
 240V, 100A, RINGTYPE

		ARIZONA PUBLIC SERVICE COMPANY			GENERAL FORM 2S PRODUCTION METER WIRING DIAGRAM	8.5" x 11"
DRAWN BY	CHECKED BY	EXAMINED BY	DATE	REVISION		
FC	FC		04-08-20	R		