TOTAL ARRAY:
10 TOTAL PARALLEL SOURCE CIRCUITS:
EACH STRING COMPRISED OF 3 MODULES
(285 W EACH) IN SERIES
TOTAL DC SYSTEM 8550 WATTS

855 WATT PHOTOVOLTAIC STRING
(TYP. 10)

48 VDC MPPT CONTROLLER #1

PHOTOVOLTAIC ARRAY DC DISCONNECT SWITCH
2-POLE, 100A, 250 VDC

2-#4 Cu THWN-2
1-#8 Cu GROUND
1" EMT CONDUIT

2-#12 Cu USE-2
"SUNLIGHT RESISTANT"
1-#12 Cu GROUND NOT IN CONDUIT

NOTE: SYSTEM DESIGNED IN ACCORDANCE WITH THE 2011 N.E.C.

Insertion to TAG 5G type Bi-Directional Production Meter

10 TOTAL PARALLEL SOURCE CIRCUITS:
EACH STRING COMPRISED OF 3 MODULES
(285 W EACH) IN SERIES
TOTAL DC SYSTEM 8550 WATTS

MODULE/PANEL RATINGS:
Voc = 39.7 VDC, Isc = 9.60 AMPS
Vmp = 31.3 VDC, Imp = 9.20 AMPS

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KEYED NOTES:

- **LABEL** "INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE," AND LOCATE BREAKER AT OPPOSITE END OF BUS FROM MAIN BREAKER LOCATION PER 2017 NEC 705.12(b)(2)(3)(b). Bi-DIRECTIONAL UTIL TITY METER TO BE INSTALLED BY UTILITY COMPANY.


- **LABEL** "PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SWITCH COVER TO BE LOCKED AT ALL TIMES. SWITCH TO BE VISIBLE OPEN AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.22.

- **LABEL** "PHOTOVOLTAIC ARRAY DC DISCONNECT SWITCH" PER NEC 690.13(b). LABEL WITH MAXIMUM VOLTAGE, MAXIMUM CIRCUIT CURRENT, AND MAXIMUM RATED OUTPUT CURRENT PER NEC 690.53. SWITCH COVER TO BE LOCKED.

- **LABEL** "WARNING: THIS SUB-PANEL FED FROM MULTI POWER PRODUCTION SOURCES.

- **PROVIDE** WARNING PER NEC 690.13(b) READING, "WARNING—ELECTRIC SHOCK HAZARD—DO NOT TOUCH TERMINALS TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OFF POSITION.

- **INVERTER** TO BE LISTED TO UL 1741.

- **METALLIC CONDUIT** SHALL BE USED WITHIN BUILDING AND LABELED PER NEC 690.31 (c).

- **GROUND FAULT PROTECTION PROVIDED IN DC/AC INVERTER.

- **GEC TO BE INSTALLED AS REQUIRED PER MANUFACTURER INSTRUCTIONS AND NEC 690.47.

- **LABEL** "MAIN BREAKER HAS BEEN DE-RATED PER NEC 705.12(b)(2)(3)(b) AND *MAX 175 AMP.

- **OPTIONAL CRITICAL LOAD SUB-PANEL ON THE OUTPUT OF THE INVERTER IN USE [NOTE: A SEPARATE BACKUP SUB-PANEL METER DISCONNECT SWITCH WILL BE REQUIRED ON THE INVERTER OUTPUT FEEDING THE BACKUP LOAD SUB-PANEL].

GENERAL NOTES:

A. **EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE 2011 NEC AND ALL APPLICABLE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.

B. **DC ARRAY PANEL GROUND WIRES MUST BE CONTINUOUS AND INSTALLED TO ALLOW FOR PANEL REMOVAL WITHOUT DISRUPTING CONTINUITY. ALL MODULE GROUND CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH NEC 690-4 (C).

C. **FOLLOW MANUFACTURERS' SUGGESTED INSTALLATION PRACTICES AND WIRING SPECIFICATIONS FOR ALL EQUIPMENT.

D. **ARRAY DC WIRES SHALL BE RATED AND LABELED "SUNLIGHT RESISTANT" WHERE EXPOSED TO AMBIENT CONDITIONS.

E. **DC EQUIPMENT SHOWN FOR ILLUSTRATION PURPOSES ONLY. ACTUAL DESIGN SHALL BE IN ACCORDANCE WITH THE NEC AND MANUFACTURER'S SPECIFICATIONS AND INSTALLATION SHALL BE IN ACCORDANCE WITH AHJ REQUIREMENTS.

F. **PER 705.10 A PERMANENT PLACARD OR DIRECTORY, DENOTING ALL ELECTRIC POWER SOURCES ON OR IN THE PREMISES, SHALL BE INSTALLED AT EACH SERVICE EQUIPMENT LOCATION AND AT LOCATIONS OF ALL ELECTRIC POWER PRODUCTION SOURCES CAPABLE OF BEING INTERCONNECTED.

G. **EQUIPMENT SHALL BE TESTED, LISTED, AND MARKED TO WITHSTAND THE AVAILABLE SHORT CIRCUIT CURRENT.

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NOTE: UTILITY HAS 24-HR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AND SERVICE ENTRANCE.

NOTE: WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS AND NEC REQUIREMENTS. FOR WORKSPACE AND ELEVATION OF PV SYSTEM UTILITY DISCONNECT SWITCH: PV SYSTEM METER, REFER TO SECTION 300 OF THE APS ESRM AND SECTION 8.2 OF THE APS INTERCONNECTION REQUIREMENTS.

NOTE: REFERENCE SECTION 301.15 OF THE APS ESRM FOR ELECTRIC METER SEPARATION BETWEEN WATER AND GAS.