

SOLAR POWER
ENGINEERING

272 SPRING HOLLOW LANE
MONTPELIER, VT 05602
802.595.5510



ER DUNSMORE LLC
4.95 MWAC PV PROJECT

2642 DUNSMORE ROAD
ST ALBANS, VERMONT 05488

DATE: 11/04/2021

PROJ NO.: ERE_DRS_1121

SCALE: NONE

DRAWN BY: BPB

REVISIONS

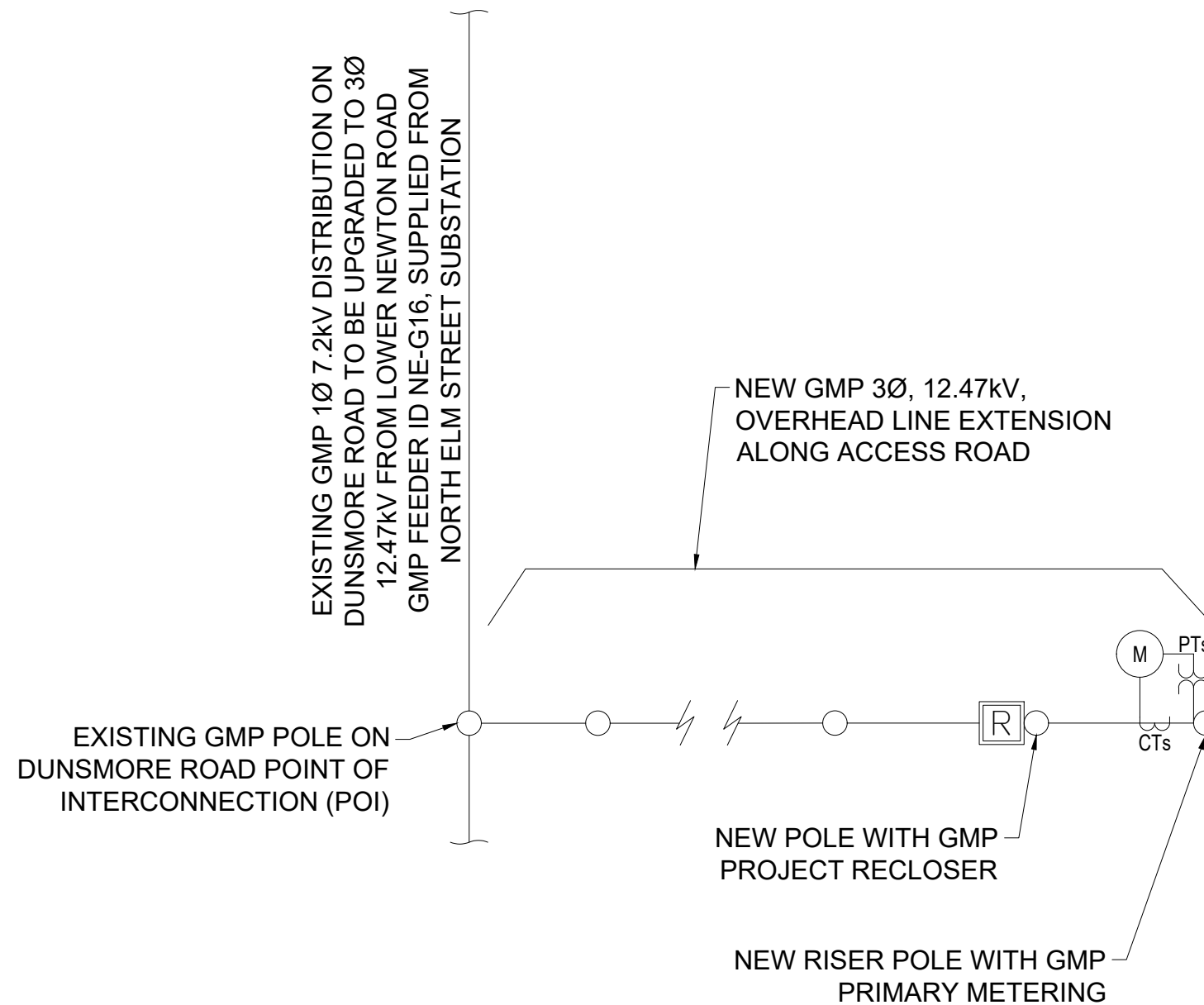
ISSUED FOR INTERCONNECT 11/04/2021

ONE-LINE
DIAGRAM
INTERCONNECT, NORTH
XFMR & SWBD

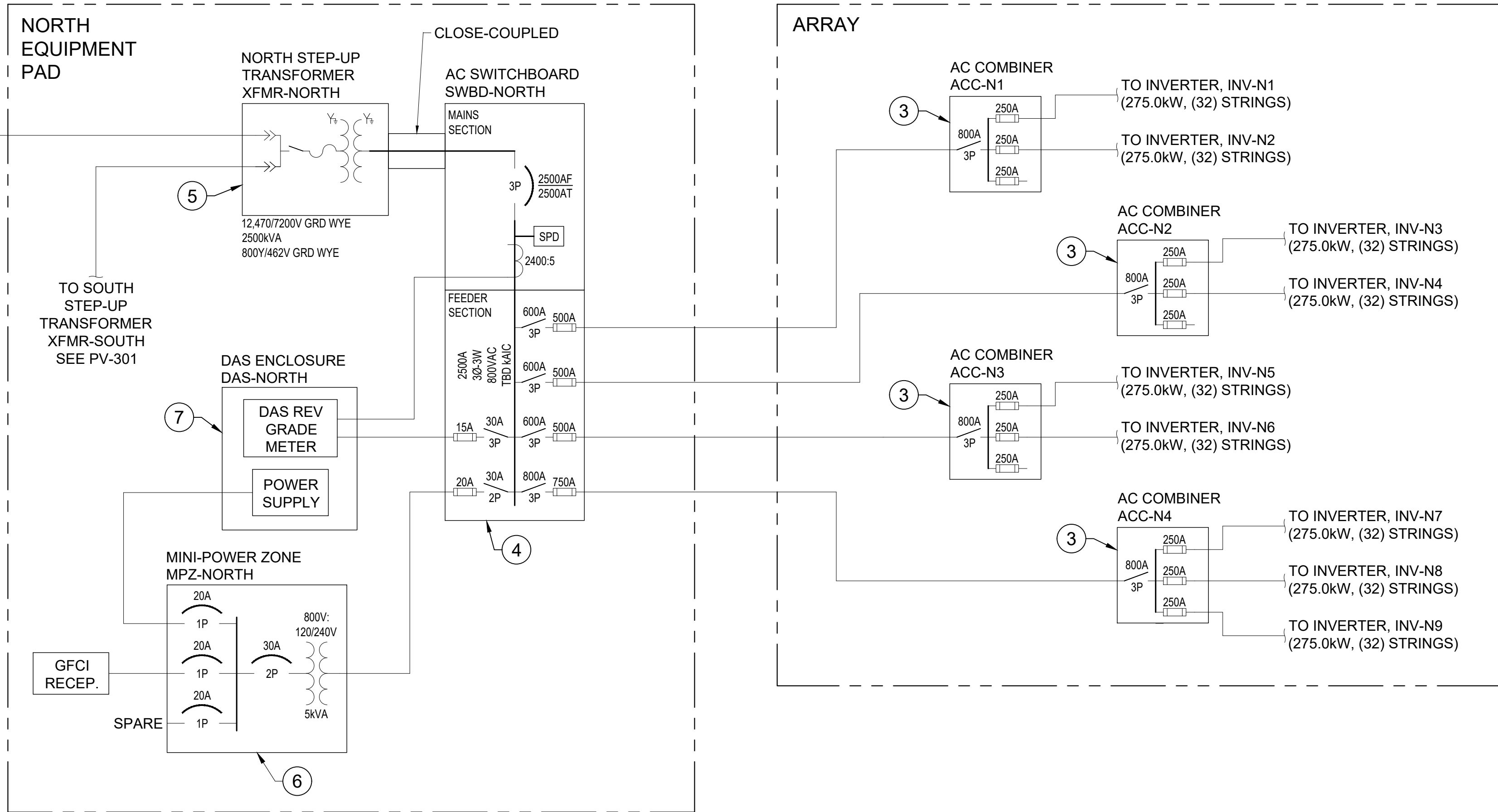
PV-300

ALL WORK ON THIS SIDE IS THE RESPONSIBILITY OF GREEN MOUNTAIN POWER (GMP). EXACT CONFIGURATION OF EQUIPMENT TO BE DETERMINED BY GMP.

ALL WORK ON THIS SIDE IS THE RESPONSIBILITY OF PV SYSTEM OWNER



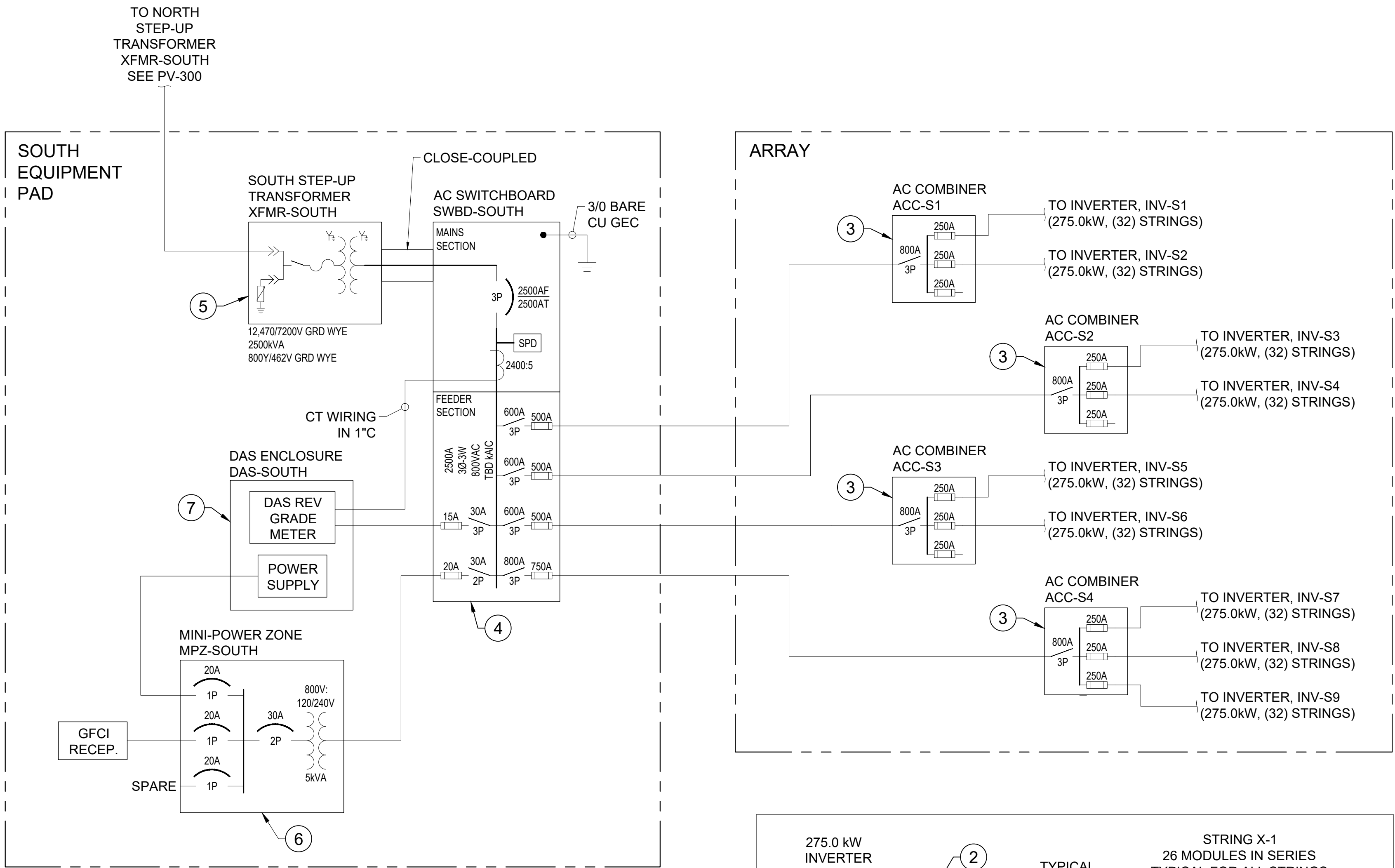
PV SYSTEM RATING		
MODULE MANUFACTURER	ET SOLAR	
MODULE PART #	ET-M672BH450TW	
MODULE WATTAGE	450	WATTS
TOTAL # MODULES	14976	MODULES
TOTAL STC POWER RATING kW (DC)	6739.20	kWDC
TOTAL SYSTEM RATING kW (AC)	4950	kWAC
PV SERIES STRING RATINGS		
# OF SERIES IN STRING	26	MODULES
MAX Voc @ -28C	1465.30	VOLTS
MAX STRING CURRENT (Isc)	11.58	AMPS
STC POWER RATING (PER STRING)	11,700	WATTS



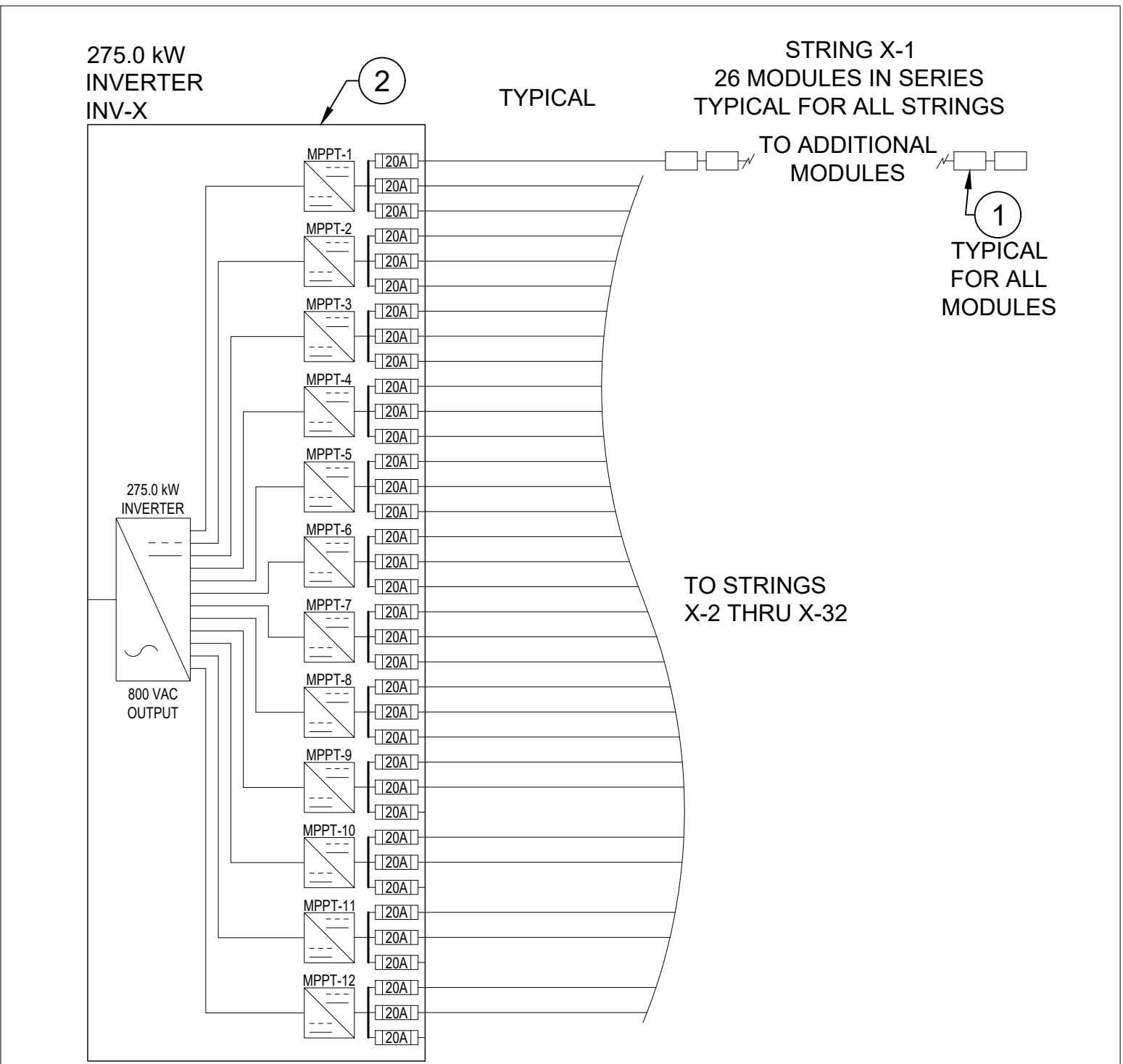
PV SYSTEM - BILL OF MATERIALS (APPLIES TO PV-300 & PV-301)		
ITEM	QTY	DESCRIPTION
1	14976	PV MODULE, 450 WATT, MONOCRYSTALLINE, BIFACIAL, (144) HALF-CELLS, ET SOLAR MODEL ET-M672BH450TW, MODULE SPECS: Vmp = 41.4; Imp = 10.87; Voc = 49.6; Isc = 11.58
2	18	PV INVERTER, 275.0 kW, 500-1500 VDC INPUT, (12) MPPT'S, 900-1300 VDC MPPT, (36) FUSED INPUTS, (3) PER MPPT, 800VAC 3Ø-3W OUTPUT, CHINT POWER SYSTEMS MODEL CPS-SCH275KTL-DO/US-800. INVERTER SHALL COMPLY WITH IEEE STD 1547 SECTION 7.4 (LIMITATION OF OVERVOLTAGE CONTRIBUTION) ALONG WITH ISO-NE SRD REQUIREMENTS.
3	8	AC COMBINER BOX, 800VAC 3Ø-3W, 800A RATED BUS, 800A MAIN DISCONNECT, (3) SETS OF 250A INPUT FUSES, SOLARBOS MODEL ACC-800-3-250-N4 OR EQUAL.
4	2	AC SWITCHBOARD, 800V, 3Ø-3W, 2500A RATED BUS, 2500A MAIN BREAKER, (1) 800A-3P FUSED SWITCH WITH 750A FUSES, (3) 600A-3P FUSED SWITCH WITH 500A FUSES, (1) 15A-3P AND (1) 20A-2P BRANCH FUSED SWITCHES, INTEGRATED SPD SURGE PROTECTION, NEMA 3R ENCLOSURE. SWITCHBOARD TO BE CLOSE COUPLED WITH TRANSFORMER. AIC AS INDICATED ON DRAWINGS.
5	2	TRANSFORMER, 2500kVA, 12,470Y/7,200V GRD WYE PRIMARY, 800Y/462V GRD WYE SECONDARY, LOOP-FEED, 200A RATED BUSHING WELLS, LOAD BREAK SWITCH WITH VIEWING WINDOW, ELBOW MOUNTED 10kV LIGHTNING ARRESTORS ON XFMR-SOUTH, 5.75% IMPEDANCE. TRANSFORMER TO BE CLOSE COUPLED WITH SWITCHBOARD.
6	2	MINI-POWER ZONE, 800V PRIMARY, 120/240V 1Ø-3W SECONDARY, 5kVA, 12-CIRCUIT, NEMA 3R ENCLOSURE
7	2	DATA ACQUISITION SYSTEM (DAS), TO INCLUDE: INVERTER DIRECT MONITORING; POWER METER; WEATHER STATION WITH POA IRRADIANCE, CELL TEMP, AMBIENT TEMP SENSORS.

GENERAL NOTE: EXACT MANUFACTURER, MODEL NUMBER AND SIZE OF THE MODULES AND INVERTERS ARE SUBJECT TO CHANGE DEPENDING ON MARKET AVAILABILITY. THE EXACT EQUIPMENT WILL NOT BE MATERIALLY DIFFERENT FROM WHAT IS SPECIFIED HERE AND TOTAL NAMEPLATE AC CAPACITY OF INVERTERS WILL NOT EXCEED 4950 kW.

NOT FOR
CONSTRUCTION



INVERTERS - INPUT & OUTPUT RATINGS			
INVERTER DESIGNATION	INV-N1 THRU INV-N9	INV-S1 THRU INV-S9	
INVERTER SIZE	275	275	kW
MODULE WATTAGE	450	450	WATTS
MODULES PER STRING	26	26	MODULES
QTY OF PARALLEL STRINGS	32	32	STRINGS
DC OPERATING INPUT VOLTAGE	1076.4	1076.4	DC VOLTS
DC OPERATING INPUT CURRENT	347.8	347.8	DC AMPS
MAXIMUM SYSTEM VOLTAGE @-28C	1465.3	1465.3	DC VOLTS
MAXIMUM SHORT CIRCUIT CURRENT	463.2	463.2	DC AMPS
INVERTER OUTPUT VOLTAGE	800	800	AC VOLTS
INVERTER RATED OUTPUT CURRENT	198.5	198.5	AC AMPS



275.0 kW INVERTER WIRING

- NOTES
1. WIRING CONFIGURATION SHOWN IS TYPICAL FOR ALL INVERTERS.

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**ONE-LINE
DIAGRAM**
SOUTH XFMR & SWBD,
INVERTER WIRING

PV-301