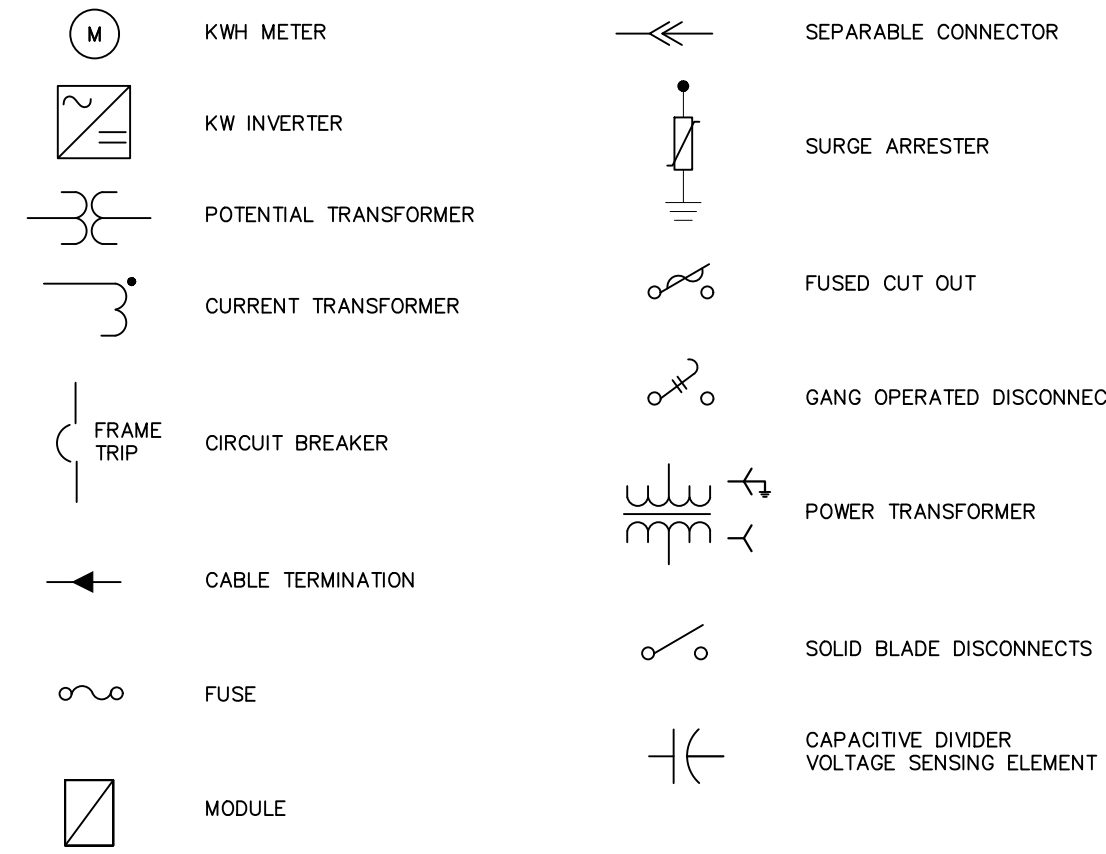


RELAY PROTECTION SETTINGS						
Relay Protective Functions	Trip Output	Voltage Settings (Sec) Pri (PU)	Frequency Setting (Hz)	Total Clearing Time Cyc. (Sec.)	Current Setting Sec (PRI)	
27P1 - Fast Undervoltage	X	(54) 3429.5 (45%)	-	9.6 (0.16)	-	
27P2 - Undervoltage	X	(84) 5334.7 (70%)	-	120 (2)	-	
59P1 - Fast Overvoltage	X	(132) 8383.1 (110%)	-	120 (2)	-	
59P2 - Overvoltage	X	(144) 9145.2 (120%)	-	9.6 (0.16)	-	
81UP1 - Underfrequency	X	-	56.5	9.6 (0.16)	-	
81UP2 - Underfrequency	X	-	58.5	18000 (300)	-	
81OP1 - Overfrequency	X	-	61.2	18000 (300)	-	
81OP2 - Over Frequency	X	-	62.0	9.6 (0.16)	-	
51 - Overcurrent	X	-	-	CURVE: U4 TD: 2.0	0.46 (273.4A)	
51G - Ground Overcurrent	X	-	-	CURVE: U4 TD: 1.0	0.18 (109.3A)	
79 - Recloser	X	(114) 7240 (95%) ≤ V ≤ (126) 8002.1 (105%)	59.5 ± 1 ± 60.5	18000 (300)	-	
Alarm	X	-	-	<120	-	

INVERTER PROTECTION SETTINGS						
Inverter Protective Function	Per Unit	Pickup	Unit	Total Clearing Time (sec)	Total Clearing Time (cycles)	Description
27-1	0.45	270.0	V (L-L)	0.16	9.6	Under Voltage
27-2	0.7	420.0	V (L-L)	2	120	
27-3	-	-	V (L-L)	-	-	
59-1	1.1	660.0	V (L-L)	2	120	Over Voltage
59-2	1.2	720.0	V (L-L)	0.16	9.6	
81U-1	-	56.5	Hz	0.16	9.6	Under Frequency
81U-2	-	58.5	Hz	300	18000	
81O-1	-	61.2	Hz	300	18000	
81O-2	-	62	Hz	0.16	9.6	Over Frequency

* SETTINGS ARE BASED ON IEEE-1547 AND NPCC DIRECTIVE 12 FIGURE 1 CURVE
 **VOLTAGE SETTING VALUES ARE L-L

ONE LINE DIAGRAM LEGEND

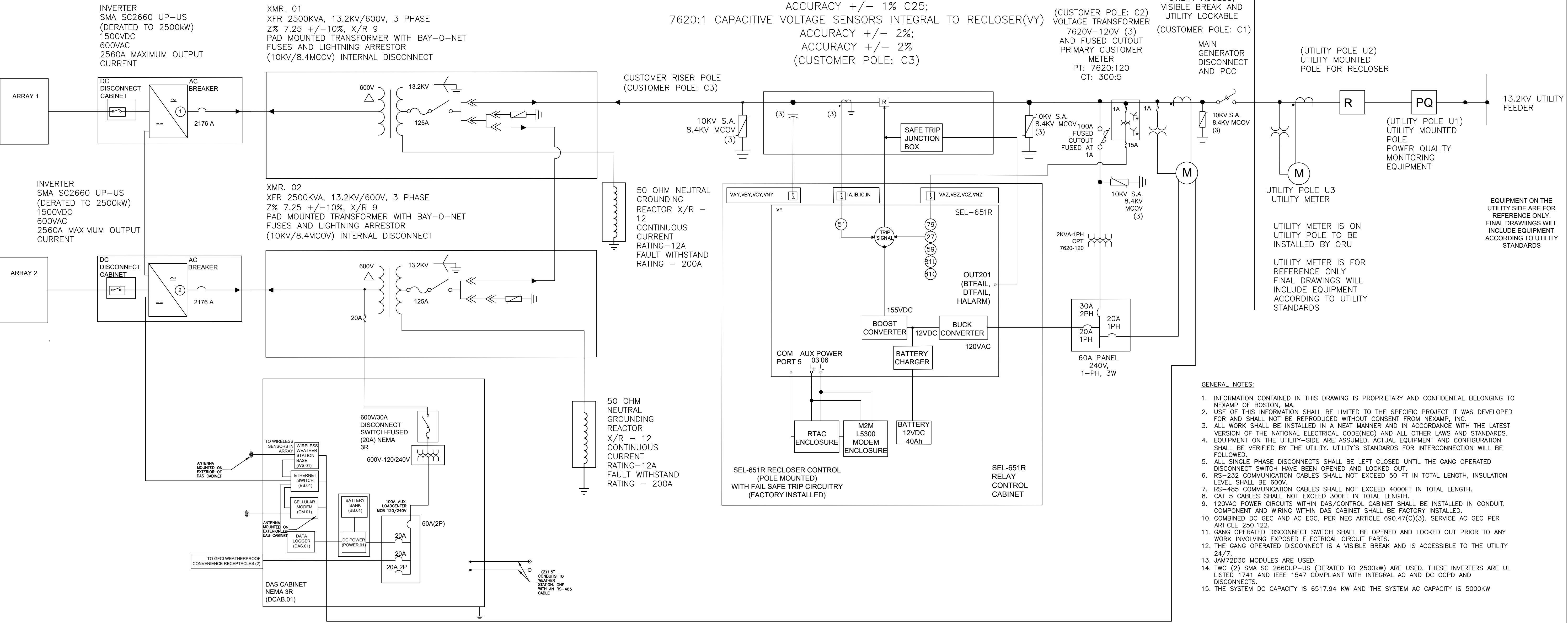


OWNER ORANGE AND ROCKLAND

POLE MOUNTED RECLOSER
 TAVRIDA RECLOSER
 630A, 27kV, 12.5kA
 120VAC AUXILIARY POWERED;
 300:1 CURRENT SENSORS INTEGRAL TO TAVRIDA RECLOSER
 ACCURACY +/- 1% C25;
 7620:1 CAPACITIVE VOLTAGE SENSORS INTEGRAL TO RECLOSER(VY)
 ACCURACY +/- 2%;
 ACCURACY +/- 2%
 (CUSTOMER POLE: C3)

(CUSTOMER POLE: C2)
 VOLTAGE TRANSFORMER
 7620V-120V (3)
 AND FUSED CUTOFF
 PRIMARY CUSTOMER
 METER
 PT: 7620:120
 CT: 300:5

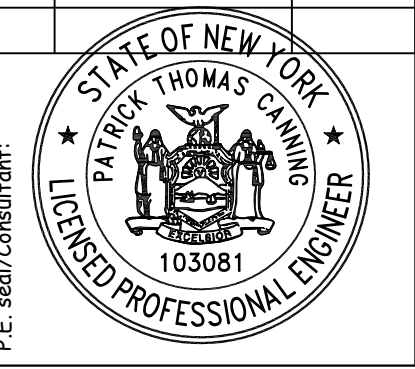
GANG OPERATED
 LOAD BREAK
 DISCONNECT
 MANUALLY OPERATED
 14.4kV RATED
 NOMINAL, 110kV BIL,
 600A CONTINUOUS
 CURRENT RATING,
 65kA INTERRUPTING
 RATING, 24/7,
 UTILITY ACCESS,
 VISIBLE BREAK AND
 UTILITY LOCKABLE
 (CUSTOMER POLE: C1)



- GENERAL NOTES:
- INFORMATION CONTAINED IN THIS DRAWING IS PROPRIETARY AND CONFIDENTIAL BELONGING TO NEXAMP OF BOSTON, MA.
 - USE OF THIS INFORMATION SHALL BE LIMITED TO THE SPECIFIC PROJECT IT WAS DEVELOPED FOR AND SHALL NOT BE REPRODUCED WITHOUT CONSENT FROM NEXAMP, INC.
 - ALL WORK SHALL BE INSTALLED IN A NEAT MANNER AND IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE(NEC) AND ALL OTHER LAWS AND STANDARDS.
 - EQUIPMENT ON THE UTILITY-SIDE ARE ASSUMED. ACTUAL EQUIPMENT AND CONFIGURATION SHALL BE VERIFIED BY THE UTILITY. UTILITY'S STANDARDS FOR INTERCONNECTION WILL BE FOLLOWED.
 - ALL SINGLE PHASE DISCONNECTS SHALL BE LEFT CLOSED UNTIL THE GANG OPERATED DISCONNECT SWITCH HAVE BEEN OPENED AND LOCKED OUT.
 - RS-232 COMMUNICATION CABLES SHALL NOT EXCEED 50 FT IN TOTAL LENGTH, INSULATION LEVEL SHALL BE 600V.
 - RS-485 COMMUNICATION CABLES SHALL NOT EXCEED 4000FT IN TOTAL LENGTH.
 - CAT 5 CABLES SHALL NOT EXCEED 300FT IN TOTAL LENGTH.
 - 120VAC POWER CIRCUITS WITHIN DAS/CONTROL CABINET SHALL BE INSTALLED IN CONDUIT. COMPONENT AND WIRING WITHIN DAS CABINET SHALL BE FACTORY INSTALLED.
 - COMBINED DC GEC AND AC EGC, PER NEC ARTICLE 690.47(C)(3). SERVICE AC GEC PER ARTICLE 250.122.
 - GANG OPERATED DISCONNECT SWITCH SHALL BE OPENED AND LOCKED OUT PRIOR TO ANY WORK INVOLVING EXPOSED ELECTRICAL CIRCUIT PARTS.
 - THE GANG OPERATED DISCONNECT IS A VISIBLE BREAK AND IS ACCESSIBLE TO THE UTILITY 24/7.
 - JAM72D30 MODULES ARE USED.
 - TWO (2) SMA SC 2660UP-US (DERATED TO 2500kW) ARE USED. THESE INVERTERS ARE UL LISTED 1741 AND IEEE 1547 COMPLIANT WITH INTEGRAL AC AND DC OCPD AND DISCONNECTS.
 - THE SYSTEM DC CAPACITY IS 6517.94 KW AND THE SYSTEM AC CAPACITY IS 5000KW



Rev	Issued For	Date
A	UIA	11JUN21



75026 - Alturus Solar PV
 73 Hartley Rd,
 Goshen, NY 10924
 41.4022, -74.3815

AC Electrical Diagram (XFR.01)
 Drawing Title: AC Electrical Diagram (XFR.01)
 Drawing By: ZRusso
 Approved by: Ngonzalez
 Scale: N.T.S.
 Dwg No: E-601
 Size: D
 Sheet Rev: A

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