

LEGEND:

	DISCONNECT SWITCH
	POWER INVERTER
	CIRCUIT BREAKER
	POWER TRANSFORMER
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	PCC (POINT OF COMMON COUPLING)
	FUSE
	VOLTAGE TEST SWITCH
	CURRENT TEST SWITCH
	CVT (CAPACITOR VOLTAGE TRANSFORMER)
	POWER METER
	RISER
	120 VAC RECEPTACLE
	INDUCTOR
	SHORT CIRCUIT FAULT POINT
	CONDUCTOR SIZE
	BATTERY

RELAY FUNCTIONS:

27	UNDERVOLTAGE RELAY
50	OVERVOLTAGE RELAY (PHASE, NEGATIVE SEQUENCE AND GROUND)
51	INSTANTANEOUS / TIME-DELAYED OVERCURRENT RELAY
51N	INSTANTANEOUS / TIME-DELAYED GROUND OVERCURRENT RELAY
81	OVER- AND UNDERFREQUENCY RELAY
25	SYNCHRONISM CHECK

TRIP SETTINGS SEL 651R

FUNCTION	HZVOLTS/AMPS	TD CYCLES
81U	>60.49 HZ	9.5
81U	<57.49 HZ	9.5
27-1	<50% 14.9V	9.5
27-2	>110% 32.9V	60
59-2	>120% 35.86V	9.5

OVER CURRENT PROTECTION

51P/C	U	VOLT CNTRLD
51P/C	2	CURVE
51P/TD	2	TIME DIAL
50P/TP	1.5	VOLT CNTRLD
51G/JP	0.4	VOLT CNTRLD
51G/LC	U2	CURVE
51G/TD	1	TIME DIAL
50N/TP	20	INST

TRIP SETTINGS SEL 351A AND SEL 351B

FUNCTION	HZVOLTS/AMPS	TD CYCLES
81U	>60.49 HZ	9.5
81U	<57.49 HZ	9.5
27-1	<50% 14.9V	9.5
27-2	>110% 32.9V	60
59-1	>120% 35.86V	9.5
3V0	>130V	9.5

OVER CURRENT PROTECTION

51P	U5	VOLT CNTRLD
51P	U5	CURVE
51P/TD	20	TIME DIAL
50P/TP	20	INST
51G/JP	0.6	VOLT CNTRLD
51G/LC	U2	CURVE
51G/TD	1	TIME DIAL
50N/TP	20	INST

CONSTRUCTION NOTES:

- MAIN STEP-UP TRANSFORMER AND INVERTER DATA SUBJECT TO CHANGE UNTIL VENDOR PRINTS ARE RECEIVED.
- FIELD TO VERIFY CT ORIENTATION AND LOCATION IS CORRECT.

NOTES:

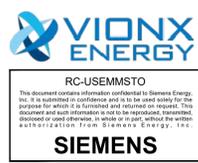
- EQUIPMENT IS LOCATED WITHIN NATIONAL GRID GROTON RD-SHIRLEY INSTALLATION FENCE AND IS ACCESSIBLE BY NATIONAL GRID.

ISSUED FOR CONSTRUCTION
OCT 15, 2018

REFERENCE DRAWINGS:

E-2.1 MAN17077-D-0001
MAN17077-D-2001

SIEMENS OVERALL SHIRLEY SINGLE LINE BATTERY STORAGE LOCATION PLAN
ELECTRICAL EQUIPMENT PAD PLAN VIEW



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VIONX ENERGY - 905-0522
BATTERY STORAGE SYSTEM
SHIRLEY, MA

DRAFTER: JBH	ENGR: SDE	DATE: 16 JUN 17
CHECKER: MB	APPD: PLK	SCALE: NONE

REV	DATE	DESCRIPTION
1	03 NOV 17	90% FOR APPROVAL
2	21 NOV 17	60% UPDATE FOR INVERTER CHANGE
3	15 DEC 17	UPDATE PER NATIONAL GRID
4	27 DEC 17	90% FOR APPROVAL
5	17 JAN 18	100% FOR APPROVAL
6	15 OCT 18	ISSUED FOR CONSTRUCTION

ONE-LINE DIAGRAM

DRAWING NO. MAN17077-D-0101

REV. 8