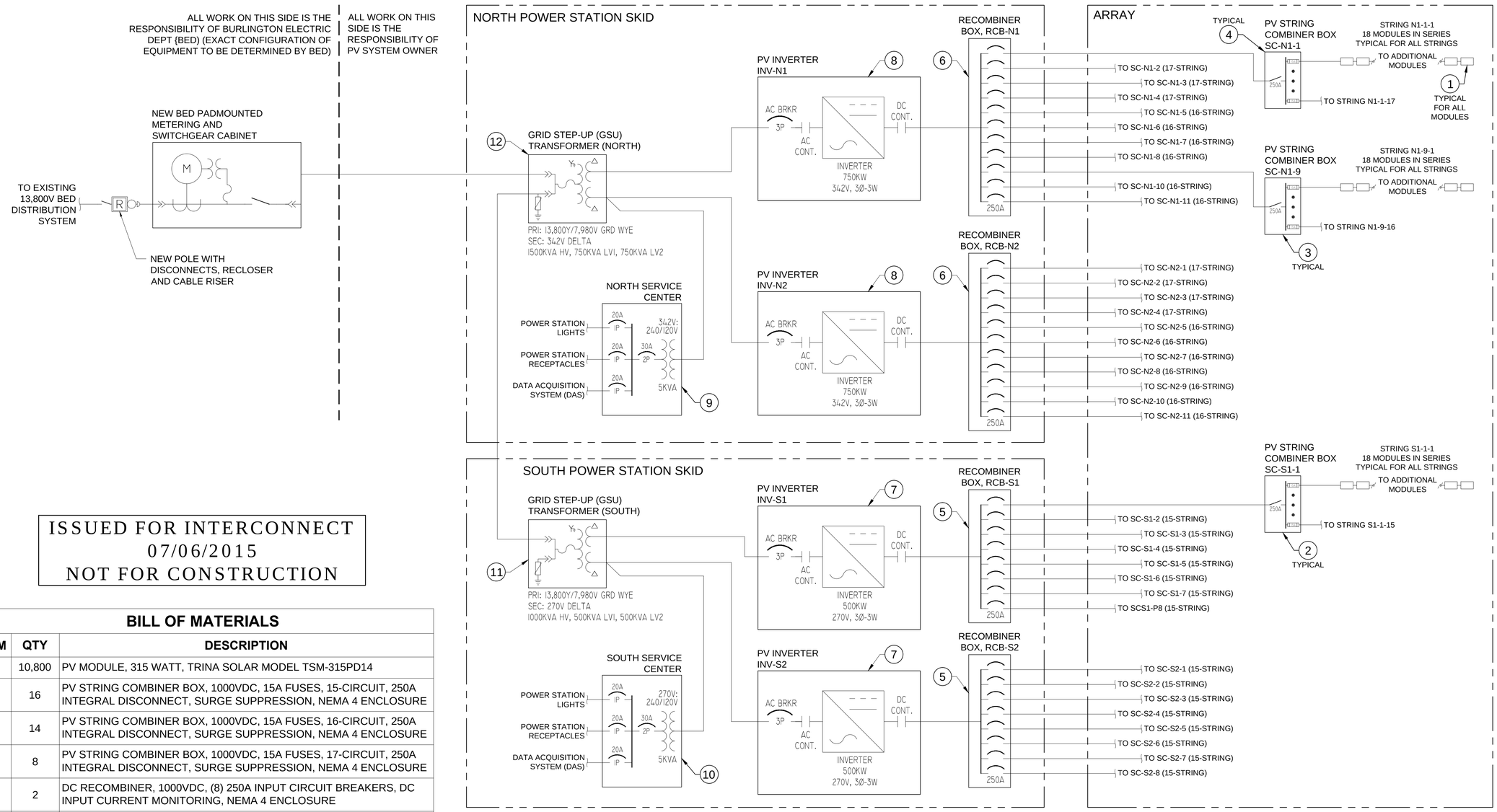
Exh. SFS-LS-6




ISSUED FOR INTERCONNECT
07/06/2015
NOT FOR CONSTRUCTION

## BILL OF MATERIALS

| ITEM | QTY | DESCRIPTION |
|---|---|---|
| 1 | 10,800 | PV MODULE, 315 WATT, TRINA SOLAR MODEL TSM-315PD14 |
| 2 | 16 | PV STRING COMBINER BOX, 1000VDC, 15A FUSES, 15-CIRCUIT, 250A INTEGRAL DISCONNECT, SURGE SUPPRESSION, NEMA 4 ENCLOSURE |
| 3 | 14 | PV STRING COMBINER BOX, 1000VDC, 15A FUSES, 16-CIRCUIT, 250A INTEGRAL DISCONNECT, SURGE SUPPRESSION, NEMA 4 ENCLOSURE |
| 4 | 8 | PV STRING COMBINER BOX, 1000VDC, 15A FUSES, 17-CIRCUIT, 250A INTEGRAL DISCONNECT, SURGE SUPPRESSION, NEMA 4 ENCLOSURE |
| 5 | 2 | DC RECOMBINER, 1000VDC, (8) 250A INPUT CIRCUIT BREAKERS, DC INPUT CURRENT MONITORING, NEMA 4 ENCLOSURE |
| 6 | 2 | DC RECOMBINER, 1000VDC, (11) 250A INPUT CIRCUIT BREAKERS, DC INPUT CURRENT MONITORING, NEMA 4 ENCLOSURE |
| 7 | 2 | PV INVERTER, 500 kW, 430-820 VDC MPPT, 270 VAC, 3-PHASE, 3-WIRE, OUTPUT, SMA SUNNY CENTRAL 500CP-US |
| 8 | 2 | PV INVERTER, 750 kW, 545-820 VDC MPPT, 270 VAC, 3-PHASE, 3-WIRE, OUTPUT, SMA SUNNY CENTRAL 500CP-US |
| 9 | 1 | MINI-POWER ZONE, 342V PRIMARY, 120/240V 1Ø-3W SECONDARY, 5 kVA, 12-CIRCUIT, NEMA 3R ENCLOSURE |
| 10 | 1 | MINI-POWER ZONE, 270V PRIMARY, 120/240V 1Ø-3W SECONDARY, 5 kVA, 12-CIRCUIT, NEMA 3R ENCLOSURE |
| 11 | 1 | TRANSFORMER, 1000 kVA WITH DUAL 500 kVA SECONDARY WINDINGS, 13,800Y/7,980V GROUNDED WYE PRIMARY, 270V DELTA SECONDARY, 6.0% IMPEDANCE, LOOP FEED PRIMARY WITH HI-SIDE FUSING |
| 12 | 1 | TRANSFORMER, 1500 kVA WITH DUAL 750 kVA SECONDARY WINDINGS, 13,800Y/7,980V GROUNDED WYE PRIMARY, 342V DELTA SECONDARY, 6.0% IMPEDANCE, LOOP FEED PRIMARY WITH HI-SIDE FUSING |

## SYSTEM RATING

| | | |
|---|---|---|
| MODULE MANUFACTURER | TRINA SOLAR | |
| MODULE PART # | TSM-315PD14 | |
| MODULE WATTAGE | 315 | WATTS |
| TOTAL # MODULES | 10,800 | MODULES |
| TOTAL STC POWER RATING | 3402.0 | KW |
| **SERIES STRING RATINGS** | | |
| # OF SERIES IN STRING | 18 | MODULES |
| MAX Voc @ -26C | 954.8 | VOLTS |
| MAX STRING CURRENT (Isc) | 9.00 | AMPS |
| STC POWER RATING (PER STRING) | 5670 | WATTS |

## INVERTERS - INPUT & OUTPUT RATINGS

| INVERTER DESIGNATION | INV S1 & S2 | INV N1 & N2 | KW |
|---|---|---|---|
| INVERTER SIZE | 500 | 750 | KW |
| # OF PARALLEL STRINGS | 120 | 180 | STRINGS |
| DC OPERATING INPUT VOLTAGE | 667.8 | 667.8 | DC VOLTS |
| DC OPERATING INPUT CURRENT | 1021.2 | 1531.8 | DC AMPS |
| MAXIMUM SYSTEM VOLTAGE | 954.8 | 954.8 | DC VOLTS |
| MAXIMUM SHORT CIRCUIT CURRENT | 1372.5 | 2070.0 | DC AMPS |
| INVERTER OUTPUT VOLTAGE | 270 | 342 | AC VOLTS |
| INVERTER MAX OUTPUT CURRENT | 1176 | 1411 | AC AMPS |


**SOLAR POWER ENGINEERING**
272 SPRING HOLLOW LANE
MONTPELIER, VT 05602
802.595.5510


STATE OF VERMONT BRIAN P. BROWNING No. 7913 PROFESSIONAL ENGINEER

# SOUTH FORTY SOLAR FARM
SUNSET CLIFF ROAD
BURLINGTON, VERMONT 05401

| | |
|---|---|
| DATE: | 07/06/2015 |
| PROJ NO. : | LWS_SFS_0414 |
| SCALE: | NONE |
| DRAWN BY: | BPB |

REVISIONS

| | |
|---|---|
| ISSUED FOR INTERCONNECT | 07/06/2015 |

PV SYSTEM ELECTRICAL ONE-LINE

PV-300