Joint Application Exhibit 3

Mercer County Solar Facility

Maps, Conceptual Plans, Specifications, and Drawings

GENERAL ARRANGEMENT
0 600' 1200'
SCALE IN FEET

NORTH

SYSTEM DESCRIPTION	
TOTAL CAPACITY @ POI (AC)	100.0 MW
SOLAR NAMEPLATE CAPACITY (AC)	122.4 MVA
SOLAR CAPACITY (DC)	126.4 MW
DC:AC RATIO	1.26
AC COLLECTION SYSTEM VOLTAGE	34.5 kV
DC SYSTEM VOLTAGE	1,500 V
TOTAL MODULES	229,812
MODULES PER STRING	33
AVERAGE STRINGS PER INVERTER	205
TOTAL INVERTERS	34

DESIGN PARAMETERS	
GROUND COVER RATIO	31%
RACKING	SINGLE AXIS TRACKER
ROW TO ROW SPACING	25.23'
BOUNDARY AREA	895 ACRES
SETBACKS	50' MIN. FROM SITE BOUNDARY 50' MIN. FROM STREAMS/WETLANDS 20' MIN. FROM RIGHTS-OF-WAY

MODULE PARAMETERS	
MANUFACTURER	TRINA
MODEL	TSM-DEG19C.20
BIN CLASS	550 W

INVERTER PARAMETERS	
MANUFACTURER	SUNGROW
MODEL	SG3600UD-MV
RATING	3,600 kVA

NOTE:

1. THIS DRAWING IS CONCEPTUAL IN NATURE AND FOR PLANNING PURPOSES ONLY.
2. THIS DRAWING REPRESENTS ONE PROPOSED LAYOUT AND IS SUBJECT TO CHANGE BASED ON DETAILED DESIGN, AS WELL AS ACTUAL SITE CONDITIONS.
3. THIS DRAWING DOES NOT CONSIDER FEDERAL, STATE, OR OTHER LOCAL DEVELOPMENT REGULATION, WHICH MAY IMPACT THE PROPOSED LAYOUT.
4. THE PROPOSED LAYOUT IS BASED ON AERIAL IMAGE AND IS SUBJECT TO CHANGE BASED ON BOUNDARY SURVEY (ALTA).
5. THE SITE LAYOUT DOES NOT TAKE INTO CONSIDERATION THE FLOOD ZONE, TRANSMISSION EASEMENTS OR OTHER EASEMENTS.

PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF KENTUCKY
JEFFREY B. HEUN
24528
LICENSED PROFESSIONAL ENGINEER
12/09/22

no.	date	by	ckd	description
B	12/08/22	PSD	SH	ISSUED FOR REVIEW
A	12/07/22	PSD	SH	ISSUED FOR REVIEW

BURNS McDONNELL
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MERCER COUNTY, KY

MERCER COUNTY SOLAR FACILITY
GENERAL ARRANGEMENT

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drawing EP100 | rev. B
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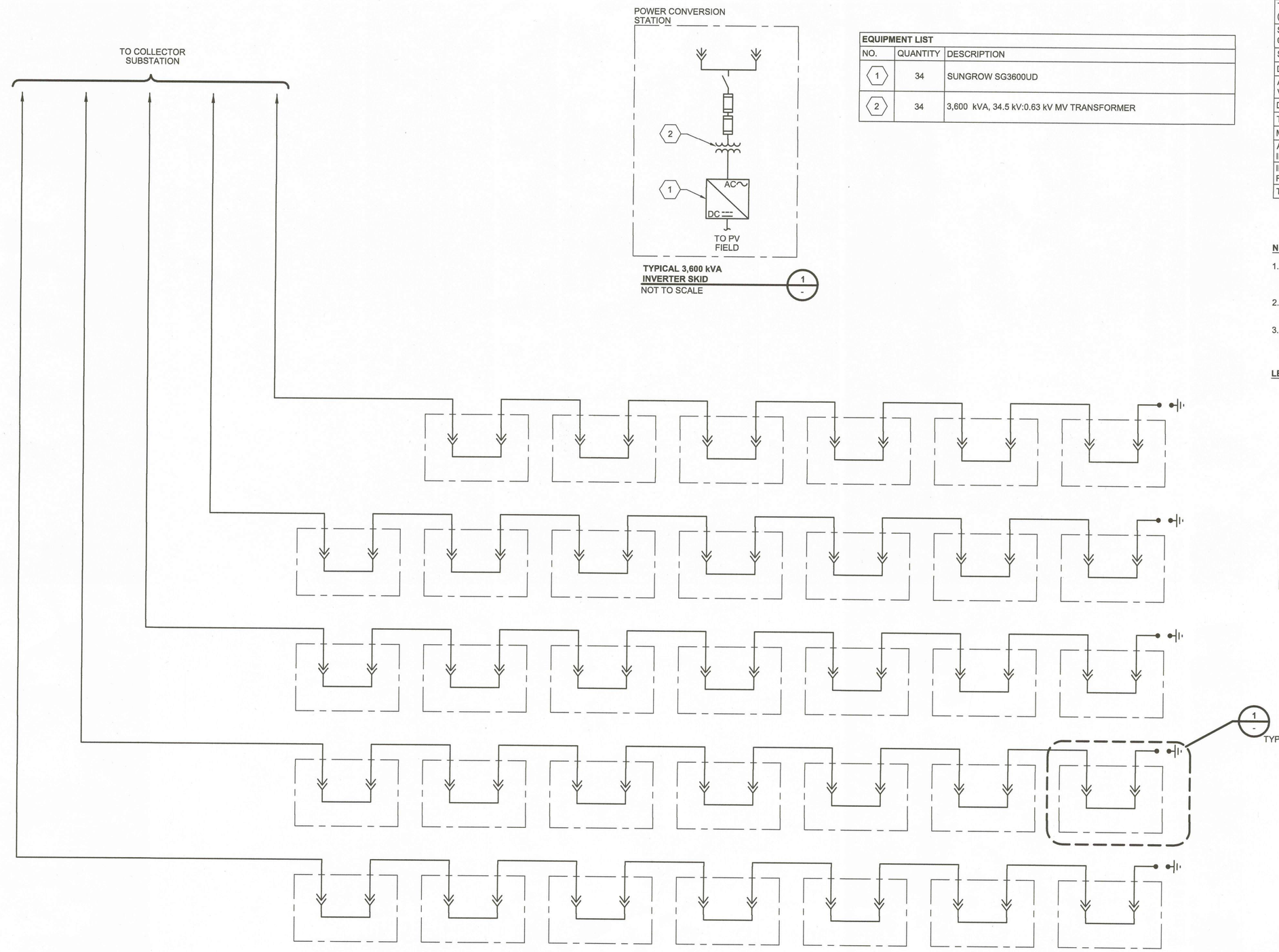

TYPICAL 3,600 kVA INVERTER SKID
NOT TO SCALE

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EQUIPMENT LIST		
NO.	QUANTITY	DESCRIPTION
1	34	SUNGROW SG3600UD
2	34	3,600 kVA, 34.5 kV:0.63 kV MV TRANSFORMER

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TOTAL INVERTERS	34

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2. THIS DRAWING IS CONCEPTUAL IN NATURE AND IS FOR PLANNING PURPOSES ONLY.
3. TRANSFORMERS SHALL MEET THE INVERTER MANUFACTURER'S SPECIFICATIONS FOR MEDIUM VOLTAGE TRANSFORMERS.

LEGEND

- POWER TRANSFORMER
- SURGE ARRESTOR
- FUSE
- DISCONNECT SWITCH
- PV MODULE
- 600 A ELBOW CONNECTOR
- SOLAR PHOTOVOLTAIC INVERTER (AC / DC)
- RISER POLE/TRANSITION FROM UNDERGROUND TO OVERHEAD

PRELIMINARY - NOT FOR CONSTRUCTION

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12/09/22

Scale For Microfilming
Millimeters
Inches

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MERCER COUNTY, KY

MERCER COUNTY SOLAR FACILITY
AC ONE LINE DIAGRAM

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drawing: EE001 | rev.: A
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