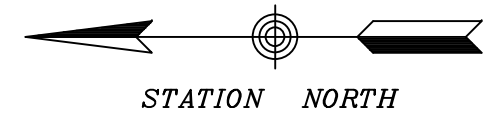


DOCKETED

Docket Number:	08-AFC-09C
Project Title:	Palmdale Energy Project (Formerly Palmdale Hybrid Power Plant) - Compliance
TN #:	210610
Document Title:	Palmdale Energy LLC's Revised Transmission System Engineering Drawings
Description:	N/A
Filer:	Marie Fleming
Organization:	DayZen LLC
Submitter Role:	Applicant Representative
Submission Date:	3/4/2016 11:48:28 AM
Docketed Date:	3/4/2016



NOTES

- POTENTIAL TRANSFORMER 2-7.5 KVA, 138000/230000Y-115/69 X 115/69 VOLTS.
- (3) CLASS A CCVT'S WITHOUT CARRIER ATTACHMENT.
- ONE (1) C60 RELAY PROVIDES BREAKER FAILURE LOCAL BACK-UP, SYNC-CHECK, AND CB SCADA.
- DIGITAL MULTIFUNCTION METER.

SCE PHASE ROTATION

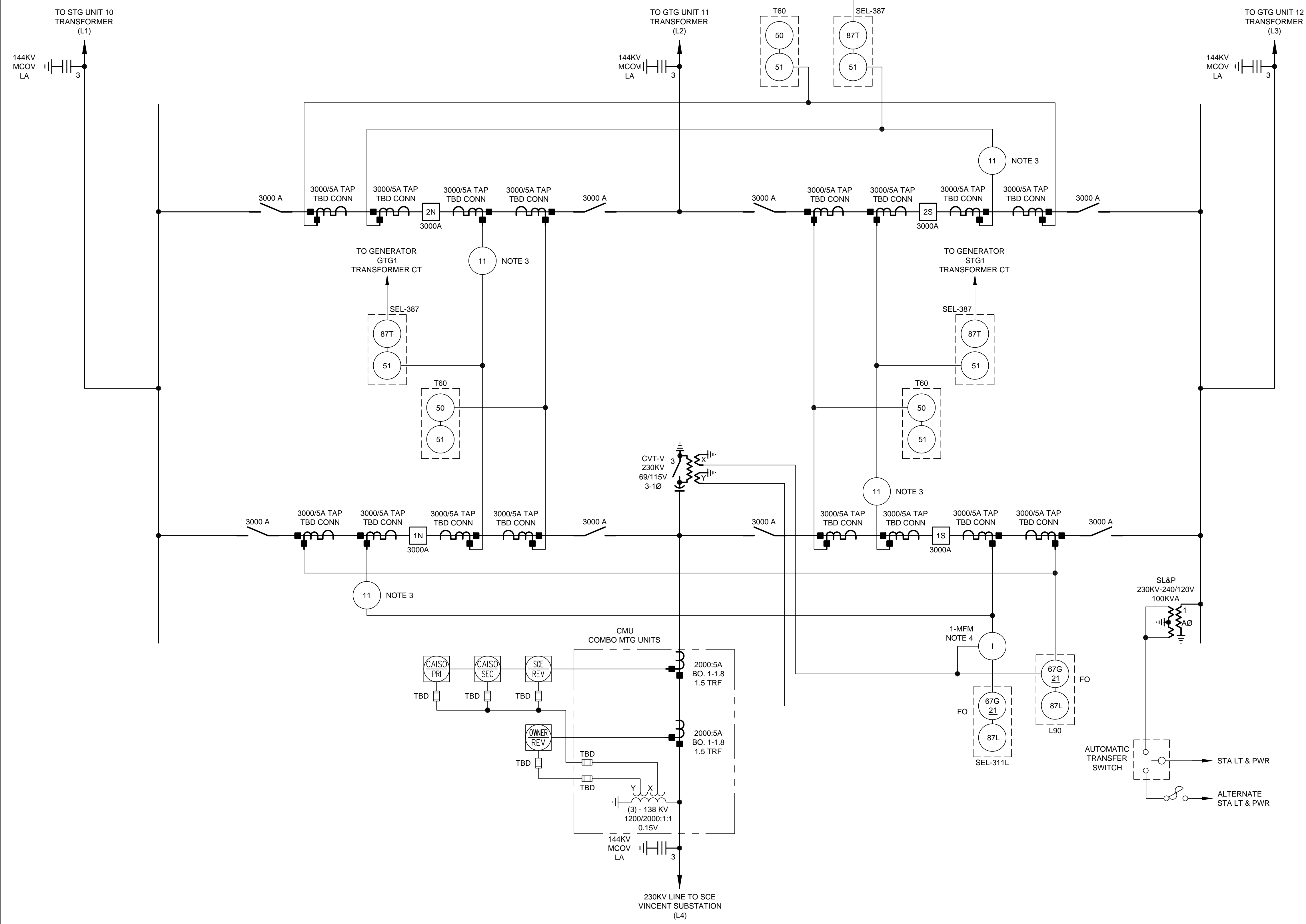
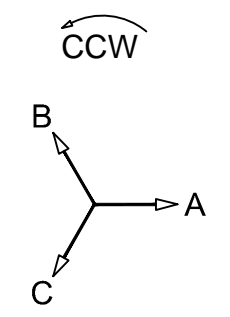


TABLE OF CBs

NUMBER	KV	MAKE	TYPE	AMP	BCTS		DUTY
					LINE SIDE	BUS SIDE	
1N	230	TBD	TBD	3000	6-3000/5	6-3000/5	50KA
2N	230	TBD	TBD	3000	6-3000/5	6-3000/5	50KA
1S	230	TBD	TBD	3000	6-3000/5	6-3000/5	50KA
2S	230	TBD	TBD	3000	6-3000/5	6-3000/5	50KA

POSITION RELAYS

POSITION	RELAYS
L1	T60 (50/51) SEL 387 (87T/51)
L2	T60 (50/51) SEL 387 (87T/51)
L3	T60 (50/51) SEL 387 (87T/51)
L4	L90 (21/67G/87L-1) SEL-311L (21/67G/87L-2)

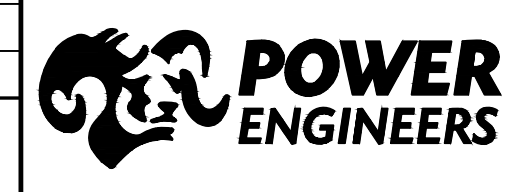
PRELIMINARY

NOT FOR CONSTRUCTION

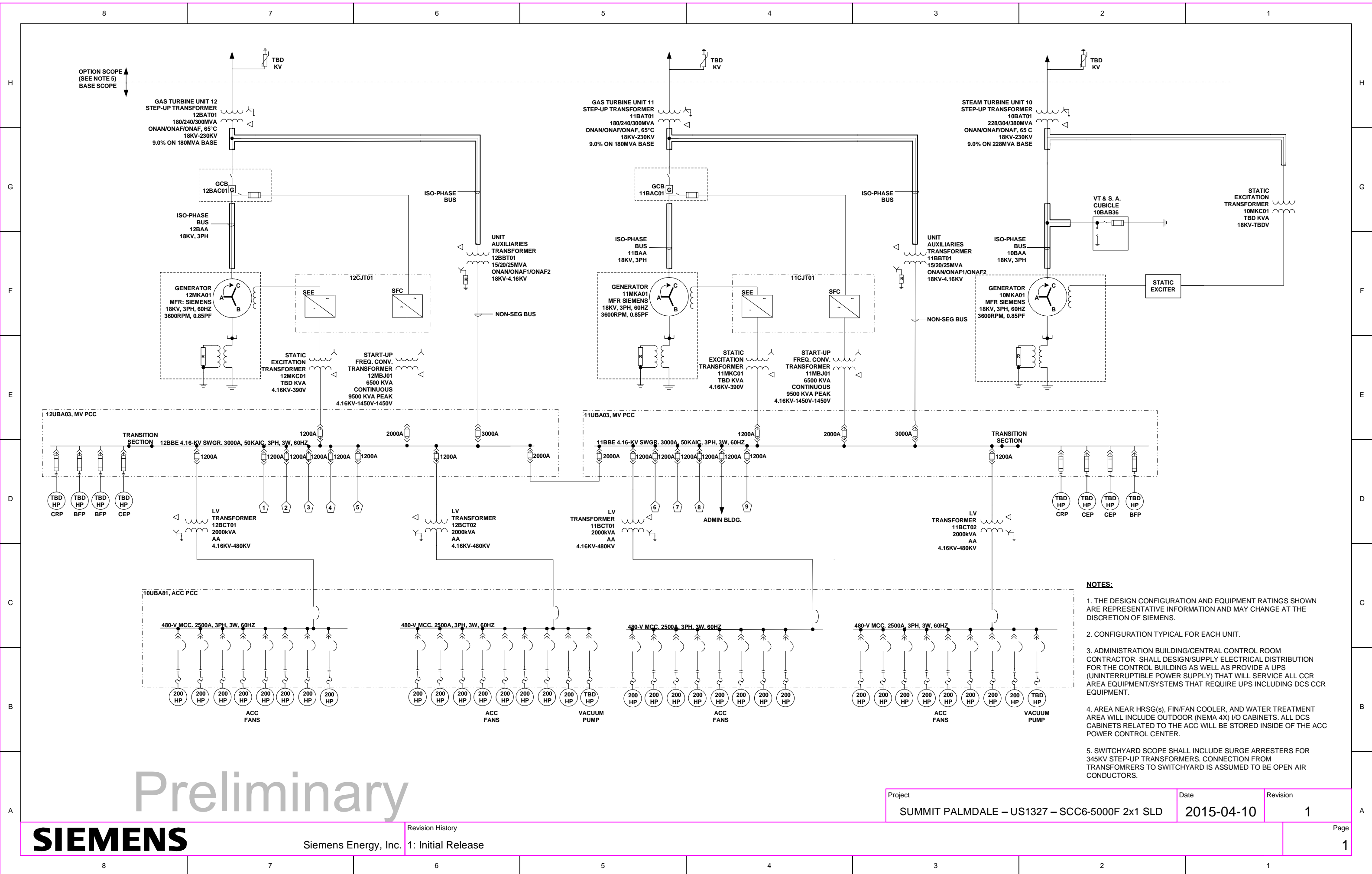
THIS DRAWING WAS PREPARED BY POWER ENGINEERS, INC. FOR A SPECIFIC PROJECT. TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH POWER AND POWER'S CLIENT IS GRANTED.

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD	REFERENCE DRAWINGS
2	REVISED GEN LN NAMES, ADDED CMU & METERS	01/26/16	ANJ	LA	WSH	-	
1	PRELIMINARY SWITCHING DESIGN SINGLE LN DIAGRAM	01/15/16	ANJ	WSH	WSH	-	GA1-1 SWITCHYARD PLAN

DSGN	WSH	01/15/16
DRN	ANJ	01/15/16
CKD	WSH	01/15/16
SCALE:	NTS	
FOR 22x34 DWG ONLY		



PALMDALE ENERGY		JOB NUMBER	REV
PALMDALE SWITCHING STATION		140073	2
ELECTRICAL SINGLE LINE DIAGRAM		DRAWING NUMBER	E1-1



- NOTES:**
1. THE DESIGN CONFIGURATION AND EQUIPMENT RATINGS SHOWN ARE REPRESENTATIVE INFORMATION AND MAY CHANGE AT THE DISCRETION OF SIEMENS.
 2. CONFIGURATION TYPICAL FOR EACH UNIT.
 3. ADMINISTRATION BUILDING/CENTRAL CONTROL ROOM CONTRACTOR SHALL DESIGN/SUPPLY ELECTRICAL DISTRIBUTION FOR THE CONTROL BUILDING AS WELL AS PROVIDE A UPS (UNINTERRUPTIBLE POWER SUPPLY) THAT WILL SERVICE ALL CCR AREA EQUIPMENT/SYSTEMS THAT REQUIRE UPS INCLUDING DCS CCR EQUIPMENT.
 4. AREA NEAR HRSG(S), FIN/FAN COOLER, AND WATER TREATMENT AREA WILL INCLUDE OUTDOOR (NEMA 4X) I/O CABINETS. ALL DCS CABINETS RELATED TO THE ACC WILL BE STORED INSIDE OF THE ACC POWER CONTROL CENTER.
 5. SWITCHYARD SCOPE SHALL INCLUDE SURGE ARRESTERS FOR 345KV STEP-UP TRANSFORMERS. CONNECTION FROM TRANSFORMERS TO SWITCHYARD IS ASSUMED TO BE OPEN AIR CONDUCTORS.

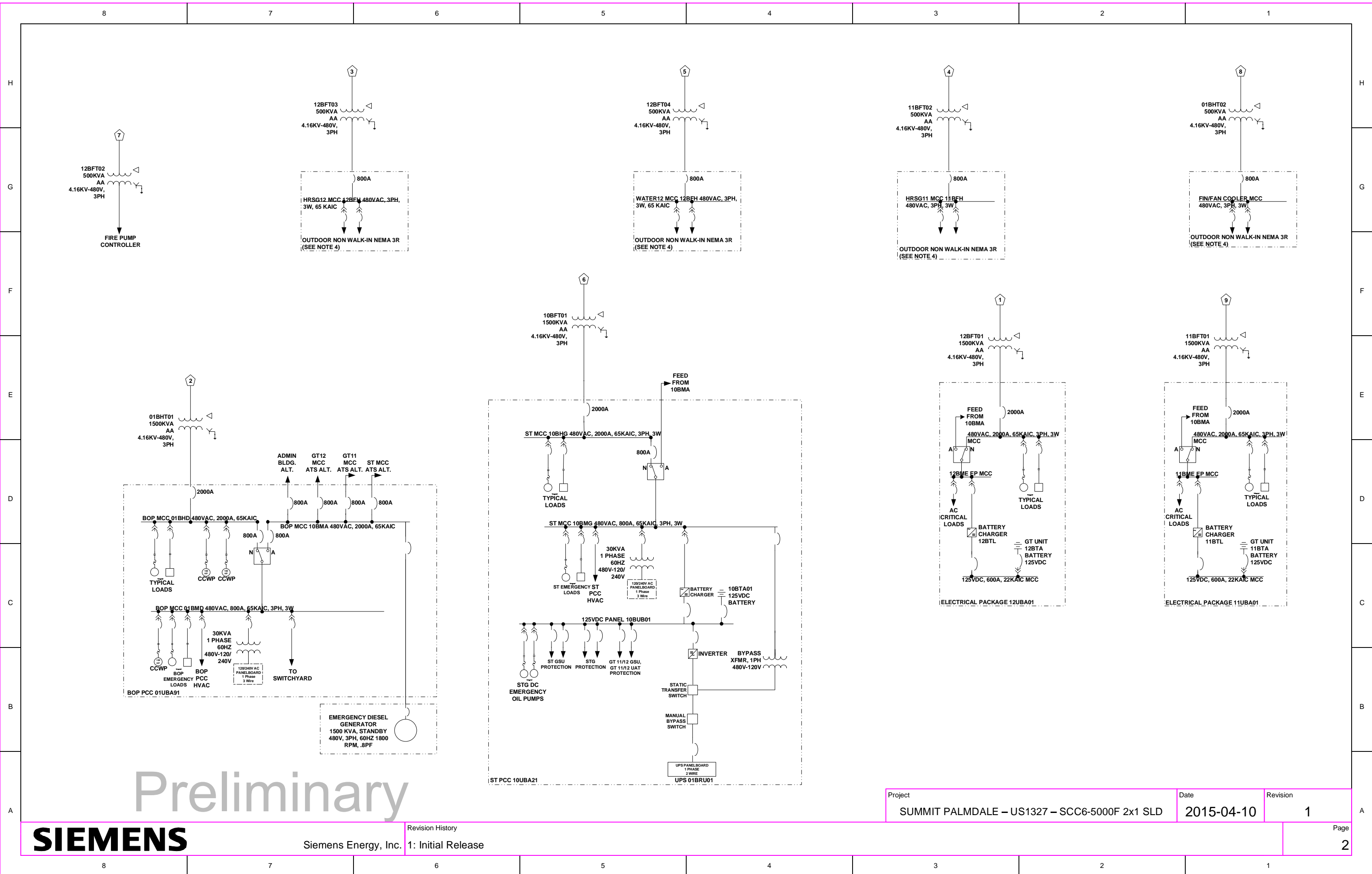
Preliminary



Siemens Energy, Inc.

Revision History
1: Initial Release

Project	Date	Revision
SUMMIT PALMDALE – US1327 – SCC6-5000F 2x1 SLD	2015-04-10	1



Preliminary



Siemens Energy, Inc. Revision History
1: Initial Release

Project	Date	Revision
SUMMIT PALMDALE – US1327 – SCC6-5000F 2x1 SLD	2015-04-10	1

Palmdale Energy Center

STG1
18kV, 3PH, 60HZ
3600RPM
0.85PF

GTG 1
18kV, 3PH, 60HZ
3600RPM
0.85PF

GTG 2
18kV, 3PH, 60HZ
3600RPM
0.85PF

18-230kV
228/304/380MVA
z = 9% on
228MVA Base

18-230kV
180/240/300MVA
z = 9% on
180MVA Base

18-230kV
180/240/300MVA
z = 9% on
180MVA Base

To Xfmr CTs
87

50
51

87

To Xfmr CTs

87

To Xfmr CTs

50
51

50
51

Bk
21

P
21

New 230kV Switchyard

35.6 Miles

230kV Line
to SCE
Vincent Substation



DATE: 03/03/16
REV: C

SUMMIT POWER
Palmdale Energy Center
ONE-LINE

DWG NO
A01