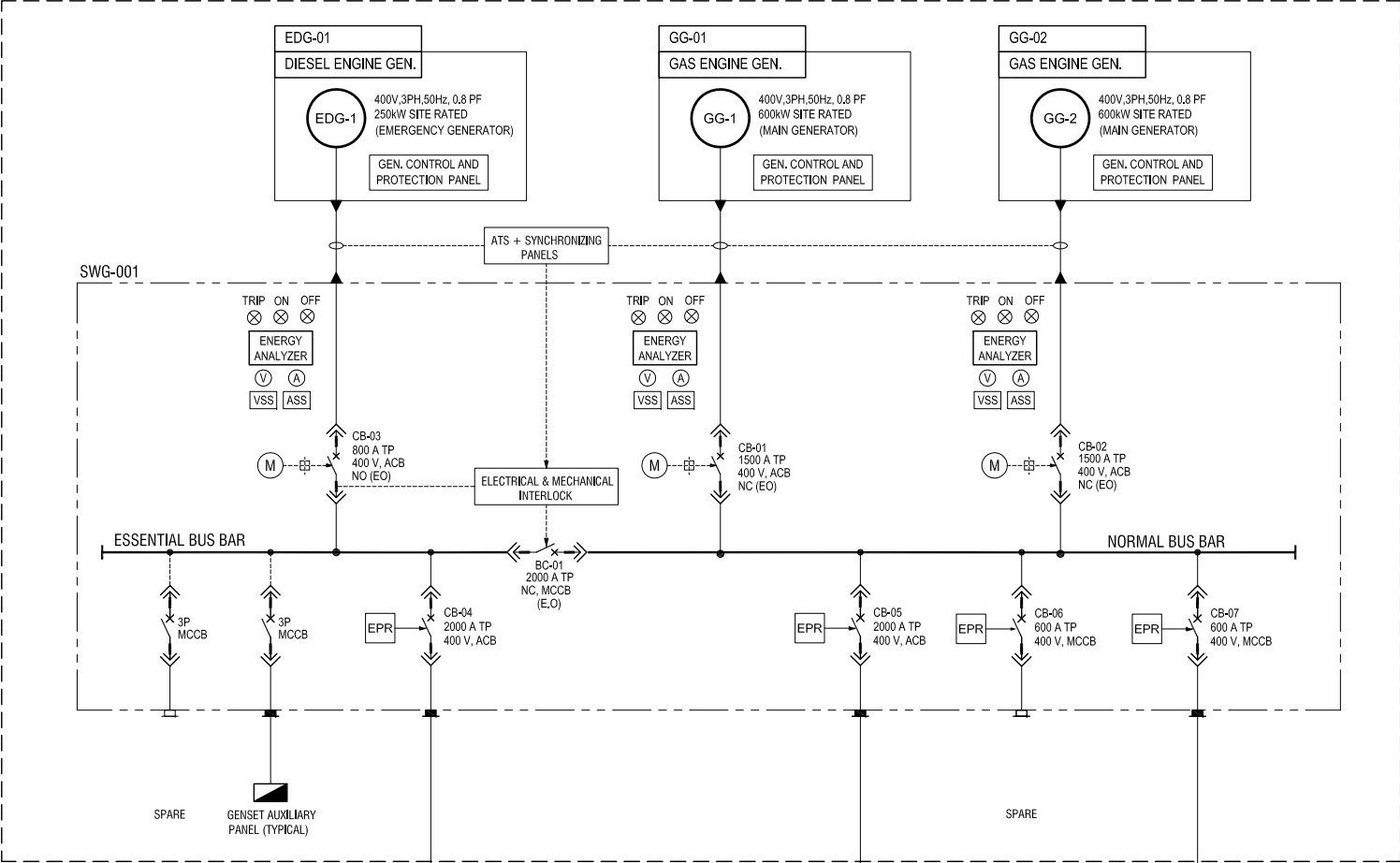
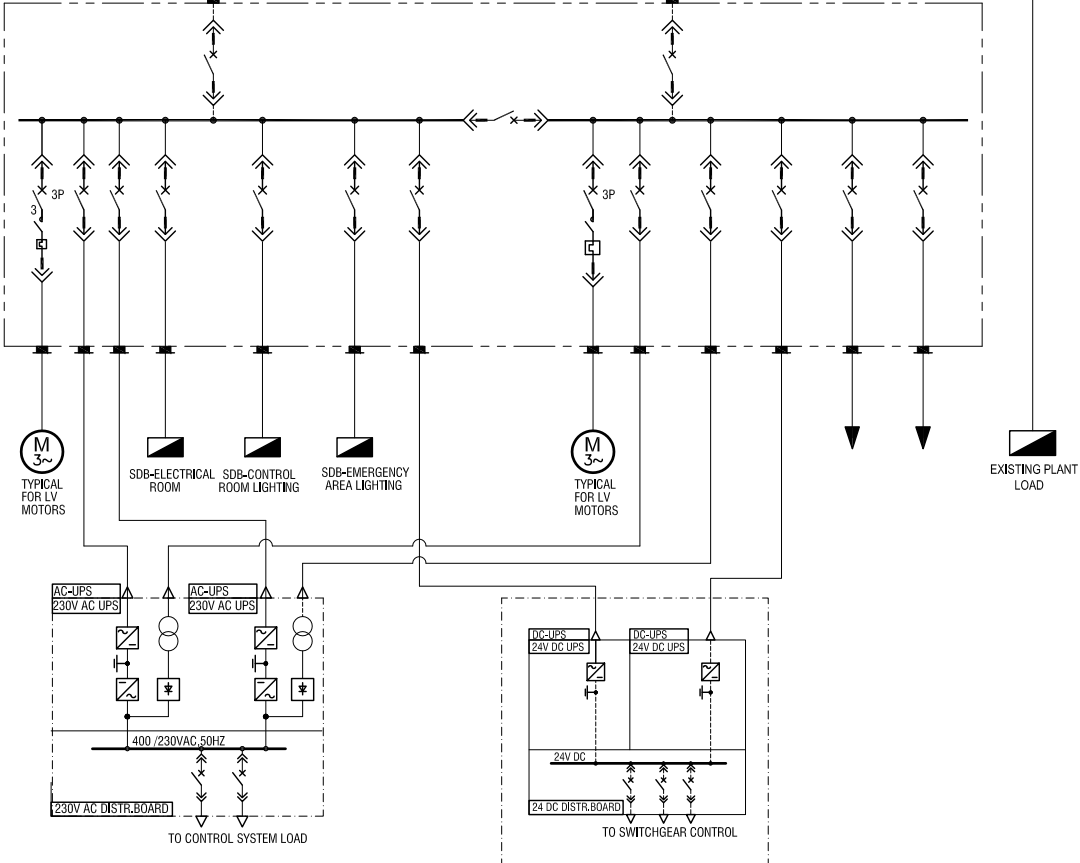


WITHIN SCOPE OF CONTRACTOR OF POWER GENERATION SYSTEM & ALLIED EQUIPMENT PACKAGE



(MOTOR CONTROL CENTER)



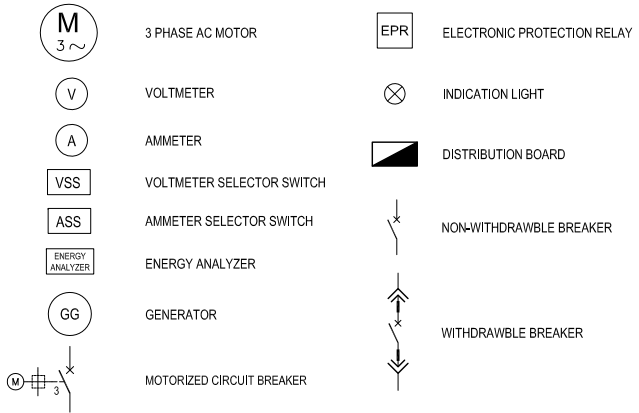
NOTES

1. NORMALLY POWER SUPPLY TO FACILITIES SHALL BE MADE THROUGH 1 No. GAS ENGINE DRIVEN GENERATORS WHILE 1 No. GENERATOR SHALL REMAIN STAND-BY.
2. DIESEL ENGINE DRIVEN SHALL BE RUN TO SUPPLY POWER TO THE ESSENTIAL LOAD OF FACILITIES AND SHALL ALSO BE USED FOR THE BLACK START OF PLANT.
3. THE EMERGENCY DIESEL GENERATOR SHALL BE SYNCHRONIZED WITH THE GAS GENERATOR IN AUTO/MANUAL MODE FOR PARALLEL OPERATION.
4. BUS COUPLER (BC-01) SHALL PROVIDE MAKE BEFORE BREAK OPERATIONAL INTERLOCKING WITH DG SET INCOMER CB DURING BLACK START OF PLANT. IT SHALL BE OPENED FOR SECTIONAL MAINTANANCE OF SWG-001 AS AND WHEN REQUIRED.
5. GENERATOR AUXILIARY CONTROL PANEL WILL BE PROVIDED BY VENDORS.
6. GENERATOR AUXILIARY CONTROL PANEL SHOULD HAVE 20% SPARE STARTERS ALONG WITH 10% SPACE.
7. ALL THE POWER, INSTRUMENT & CONTROL CABLING BETWEEN GENERATOR, UCP SYNC PANEL, ATS / AMF PANEL AND GENERATOR AUXILIARY PANEL WILL BE PROVIDED BY VENDOR.
8. THE VENDOR WILL PROVIDE THE TERMINATION DRAWING FOR INSTRUMENT AND CONTROL CABLE INSTALLATION.
9. VENDOR WILL PROVIDE GENERATORS CONTROL PANEL AND OTHER CONTROL PANEL REQUIRED FOR SYNCHRONIZING LOAD SHARING & AUTO STARTING.
10. BUSBAR SHALL BE OF 2000A, 3P+N+E, 50Hz, 35ka RMS 3 SEC, TIN COATED Cu BUS BAR TYPE.
11. THE NUMBER AND RATINGS OF THE OUTGOING CIRCUITS OF GENERATOR AUXILIARY PANEL, FEEDING GENSET(S) AUXILIARY PANEL(S) SHALL BE FINALIZED BY PACKAGE VENDOR AND SHALL BE INCLUDED IN ITS SCOPE OF SUPPLY AS PART OF SWG-001.

CIRCUIT BREAKER / BUS COUPLER OPERATING SCHEME

POSITION OF CB	CB-01 CB-02	BC-01	CB-04 CB-05	CB-03
BLACK START	OPEN	OPEN	OPEN	CLOSE
NORMAL OPERATION	CLOSE	CLOSE	CLOSE	OPEN

LEGENDS:



ISSUED FOR TENDER

REV.	DATE	DESCRIPTION OF REVISION	DRAWN	CHECKED	APPR.
3	24-10-2018	ISSUED FOR TENDER	MIA	MF	NAK
2	25-05-2018	ISSUED FOR APPROVAL	MIA	MF	NAK
1	31-10-2016	ISSUED FOR REVIEW	AHS	MK	NAK
0	04-12-2013	ISSUED FOR TENDER	AHS	MK	NAK

CLIENT: **OIL & GAS DEVELOPMENT COMPANY LTD.**
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E-Mail: contact@zishanengineers.com Website: www.zishanengineers.com

PROJECT : MELA DEVELOPMENT PROJECT		JOB NO. 165-2		
TITLE : KEY SINGLE LINE DIAGRAM				
		SIZE	SCALE	SHEET
		A3	N.T.S	1 OF 1