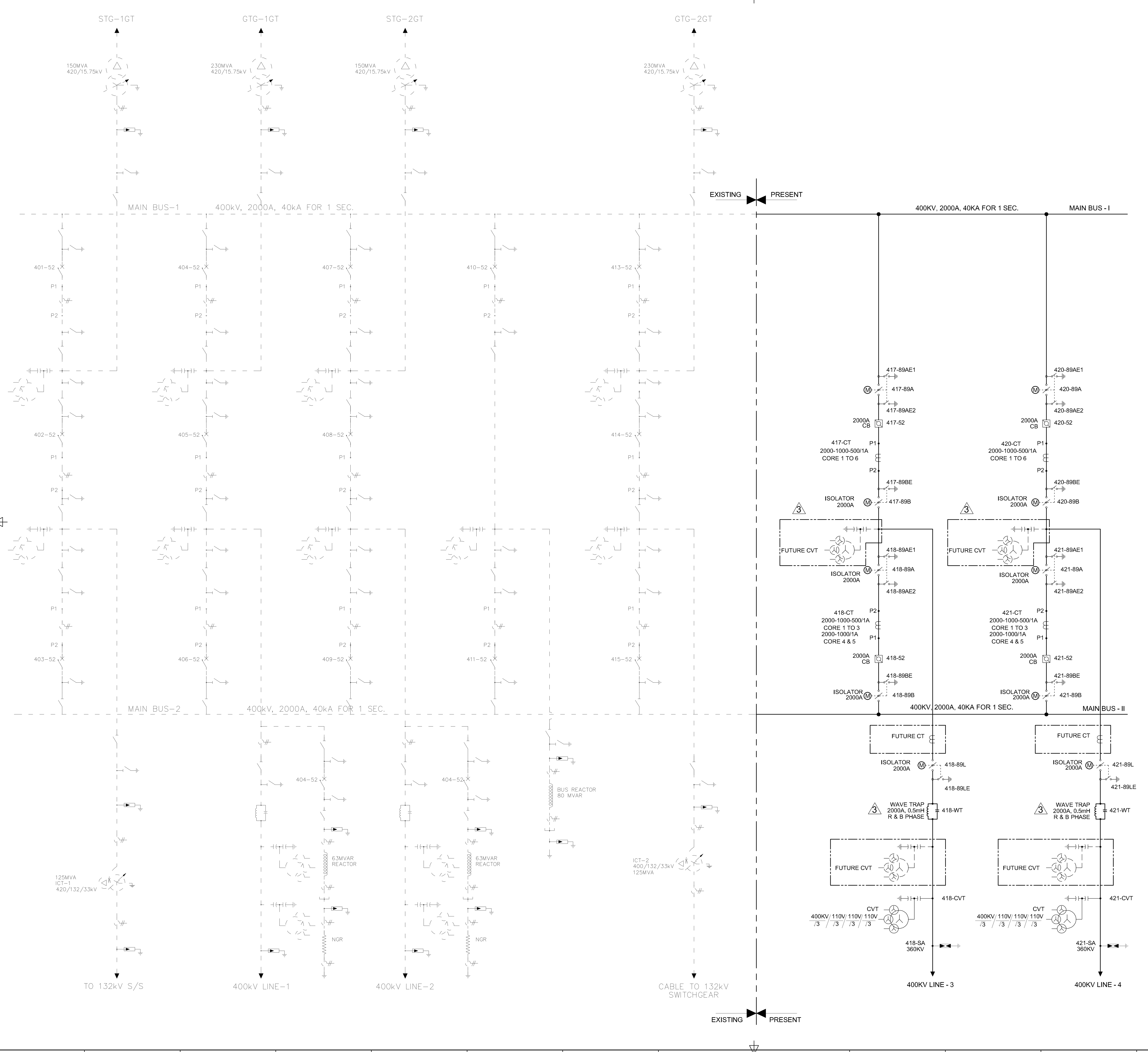

BILL OF QUANTITIES (420 kV EQUIPMENT)

SL. NO.	ITEM DESCRIPTION	QTY.	SYMBOL	REMARKS
1	420kV, 2000A, 1-POLE, SPRING OPERATED SF6 CIRCUIT BREAKER WITHOUT PIR SUITABLE FOR SINGLE & 3PH OPERATION.	12 NOS.		
2	420KV, 2000A, 3-PH, DOUBLE BREAK ISOLATOR (ELECTRICALLY GANGED MOTOR OPERATED) WITH ONE EARTH SWITCH (MANUALLY OPERATED)	06 SETS		
3	420KV, 2000A, 3-PH, DOUBLE BREAK ISOLATOR (ELECTRICALLY GANGED MOTOR OPERATED) WITH TWO EARTH SWITCH (MANUALLY OPERATED)	04 SETS		
4	420KV, 1-PH, 5 CORE CURRENT TRANSFORMER (2000-1000-500/1A) CORE 1 TO 3, (2000-1000/1A) CORE 4 & 5	06 NOS.	P1 P2	
5	420KV, 1-PH, 6 CORE CURRENT TRANSFORMER (2000-1000-500/1A) CORE 1 TO 6	06 NOS.	P1 P2	
6	420kV, 4400pF, 400/sqrt(3)/ 0.110/sqrt(3)/ 0.110/sqrt(3)/ 0.110/sqrt(3), 1-PH CAPACITOR VOLTAGE TRANSFORMER	06 NOS.		
7	360KV, 1-PH SURGE ARRESTERS, 20KA, CLASS-4	06 NOS.		
8	420kV, 2000A, 0.5mH, 1-PH WAVE TRAP	04 NOS.		

SYSTEM PARAMETERS:-

SL. NO.	PARAMETER	VALUE
1	VOLTAGE (NOM. / MAX.) (kV)	400 / 420
2	FREQUENCY (Hz)	50
3	FAULT LEVEL KArms	40
4	SYSTEM EARTHING	EFFECTIVELY EARTHED
5	SHORT TIME CURRENT RATING (FOR ALL CURRENT CARRYING PARTS)	40 kA FOR 1 Sec.
6	LIGHTNING IMPULSE WITH STAND VOLTAGE (KVp)	1425
7	SWITCHING IMPULSE WITH STAND VOLTAGE (KVp)	1050
8	ONE MINUTE POWER FREQUENCY WITHSTAND VOLTAGE (DRY) (KV/rms)	630

LEGEND :-

- PRESENT SCOPE
- EXISTING
- FUTURE

NOMENCLATURE:-

4 17 52 → EQUIPMENT REFERENCE
17 → BAY NUMBER
4 → SYSTEM VOLTAGE
4 - FOR 400kV

REFERENCE :-

1.400KV SWITCHYARD BAY EXTENSION: KEY SINGLE LINE DIAGRAM
DRG.NO : FCE-1117163-EL-DWG-SLD-2100-001, REV.- 1

FICHTNER Consulting Engineers (India) Private Limited
VENDOR DOCUMENT REVIEW STATUS
Action - 1 Approved
Action - 2 Approved except as noted. Revise and resubmit for final approval
Action - 3 Returned with Comments. Revise and resubmit for review/ approval
Action - 4 Not approved. Revise and resubmit for review
Action - 5 Retained for Information, Reference & Records
Action - 6 Returned without review
Action - 7 Documents reviewed only against our previous comments and other revisions highlighted and identified by the Contractor/Vendor
Action - 8 Reviewed
Review/Approval of document for the general compliance with the Contract does not constitute a blanket approval of the content of document.The Vendor / Contractor is responsible for correctness of design and details. Approval of document does not relieve the Vendor / Contractor of his responsibility in carrying out the work correctly and fulfilling the complete requirements of the contract, stated or implied, nor does it limit the Purchaser's rights under the Contract.
FI Letter Ref. No. 1117163/EL/VDT/2100/0010 Date: 30/10/2018
Signature KVR Initials

REV. NO.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	23.10.18	REVISED AS PER FICHTNER COMMENTS DTD. 15.10.18	IM	AB	SS
02	05.10.18	REVISED AS PER FICHTNER COMMENTS DTD. 03.10.18	IM	AB	SS
01	01.10.18	REVISED AS PER FICHTNER COMMENTS DTD. 27.09.18	IM	AB	SS

CATEGORY OF DRAWING: ✓ APPROVAL | INFORMATION | RECORD | CONSTRUCTION | REFERENCE

CLIENT: ONGC-TRIPURA POWER COMPANY PRIVATE LTD.

CONSULTANT: FICHTNER CONSULTING ENGINEERS (INDIA) PVT. LTD. CHENNAI

CONTRACTOR: STERLING AND WILSON PVT. LTD., KOLKATA

PROJECT: 400KV SWITCHYARD BAY EXTENSION AT ONGC TRIPURA POWER COMPANY LIMITED, PALATANA, TRIPURA
LOA. REF. NO. - OTPC/400KV LINE BAYS/PAL/18-19/1001, DATED : 4.09.2018

400KV SWITCHYARD BAY EXTENSION : SINGLE LINE DIAGRAM

	NAME	SIGN	DATE			
DRAWN	SG		19.09.18	SCALE - 1:1	SHEET	REV.
CHECKED	AB		19.09.18	CLIENT DRG. NO. -	1 OF 1	3
APPROVED	SS		19.09.18	CONTRACTOR DRG. NO. - SWPL / OTPC / SLD / 042	SHEET SIZE - A1	