

BILL OF QUANTITY

BILL OF QUANTITY (AIS EQUIPMENTS)-765KV, 50kA				
SL.	ITEM DESCRIPTION	QUANTITY	SYMBOL	
1	500 MVA,765/400/33KV (1-PH) AUTOTRANSFORMER ALONGWITH 33KV NCT (1 NO. PER BANK)	6*		
2	CIRCUIT BREAKER WITH CR (3150A, 3-PH)	2		
3	CIRCUIT BREAKER WITHOUT CR (3150A, 3-PH)	2		
4	SURGE ARRESTER (624 KV)	6		
5	CURRENT TRANSFORMER (3000A, 1-PH)	12		
6	ISOLATOR WITH ONE E/S (3150A, 3-PH)	10		
7	ISOLATOR WITH ONE E/S (2000A, 1-PH)	12		
8	ISOLATOR WITHOUT E/S (2000A, 1-PH)	6		
9	CONTROLLED SWITCHING DEVICE	4		

BILL OF QUANTITY - 220KV, 40kA FOR 1 SEC				
S.NO.	ITEM DESCRIPTION	UNIT	SYMBOL	QUANTITY
1	245KV CIRCUIT BREAKERS (3 PH)			
	a. 1600 AMP	NOS.		06
	b. 2500 AMP	NOS.		06
2	i) 245KV ISOLATORS, 1600AMP (3 PH)			
	a. WITH 2 E/S	NOS.		06
	b. WITH 1 E/S	NOS.		06
	c. TANDOM WITHOUT E/S	NOS.		12
	ii) 245KV ISOLATORS, 2500AMP (3 PH)			
	a. WITH 2 E/S	NOS.		04
	b. WITH 1 E/S	NOS.		06
3	245KV CT (1 PH)			
	a.1600AMP WITH 120% I th	NOS.		18
	a.1600AMP WITH 150% I th	NOS.		18
4	245KV CVT (1 PH), 4400 pF	NOS.		12
5	210KV SURGE ARRESTOR (1 PH)	NOS.		18
6	220KV SF6 TO AIR BUSHING(1-PH, 1600AMP)	NOS.		24

NOTES:

1. SLD IS BASED ON CTU IOM DATED 14.06.2018

* EMPLOYER SUPPLIED EQUIPMENT

BILL OF QUANTITY-400KV, 63KA FOR 1 SEC				
SL.	ITEM DESCRIPTION	SYMBOL	UNIT	QUANTITY
1	500MVA, 400/220/33KV (3-PH) AUTOTRANSFORMER		NOS.	6*
2	CIRCUIT BREAKER WITH CR (3150A, 3-PH)		NOS.	1
3	CIRCUIT BREAKER WITHOUT CR (3150A, 3-PH)		NOS.	3
4	ISOLATOR WITH ONE E/S (3150A, 3-PH)		NOS.	7
5	ISOLATOR WITH ONE E/S (2000A, 3-PH)		NOS.	3
6	CURRENT TRANSFORMER (3000A, 1-PH)		NOS.	12
7	SURGE ARRESTER (336 KV)		NOS.	24
8	CONTROLLED SWITCHING DEVICE		NOS.	12
9	ICT BAY MODULE (3150A, 3-PH) - GIS		SET	6
10	TIE BAY MODULE (3150A, 3-PH) - GIS		SET	2
11	BUS SECTIONALISER BAY MODULE (4000A,3-PH)-GIS		SET	2
12	BUS BAR MODULE (4000A)-GIS		SET	2
13	AUX BUS MODULE - SPARE T/F (3150A)-GIS		SET	1
14	SF6 TO AIR BUSHING (4000A, 1-PH)		NOS.	6
15	SF6 TO AIR BUSHING (3150A, 1-PH)		NOS.	16

FOR FR/TENDER PURPOSE ONLY

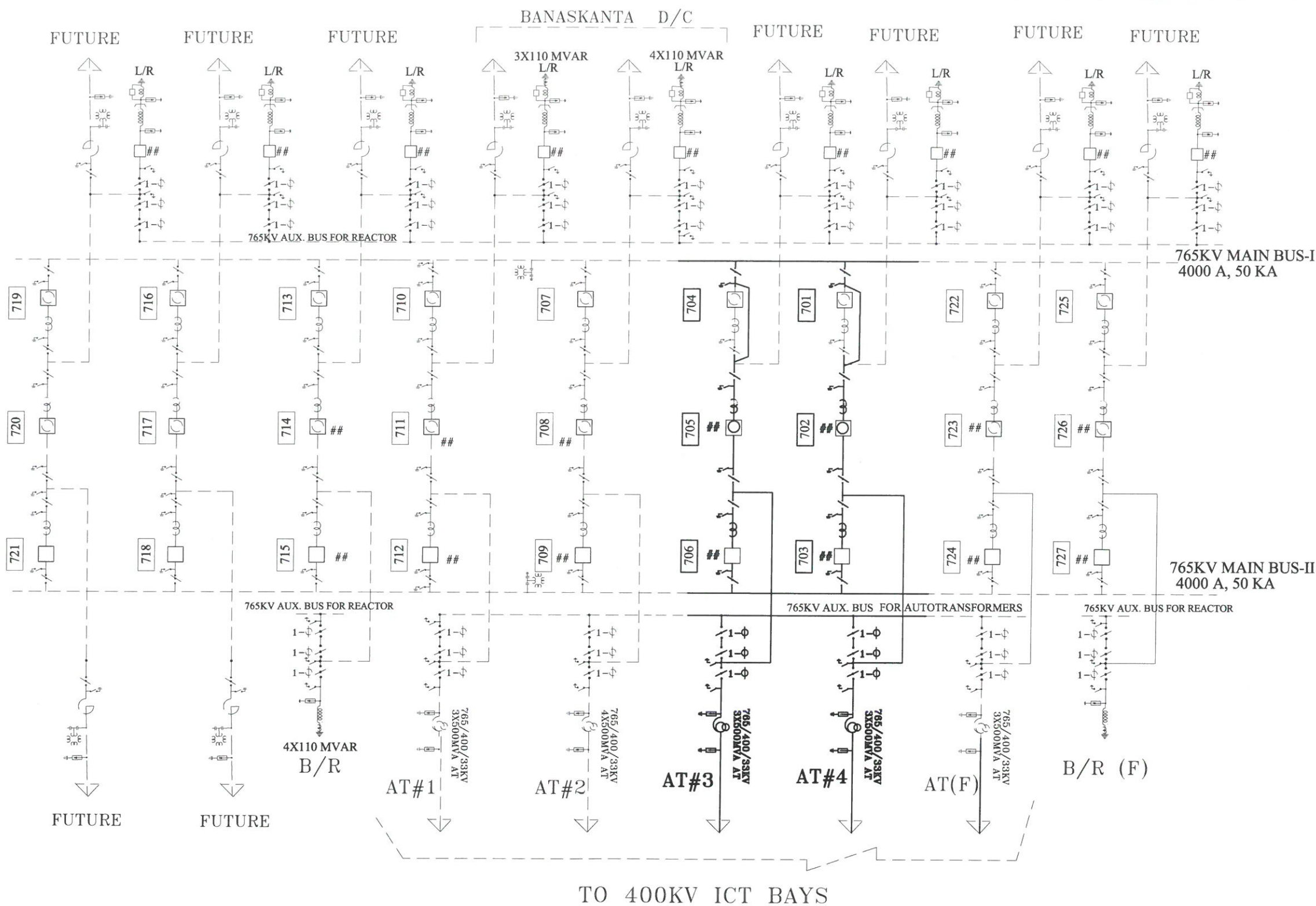
POWER GRID CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)

PROJECT: SYSTEM STRENGTHENING SCHEME AT BHUJ PS.

SUBSTATION: 765/400/220KV BHUJ POOL SUBSTATION

TITLE: SINGLE LINE DIAGRAM

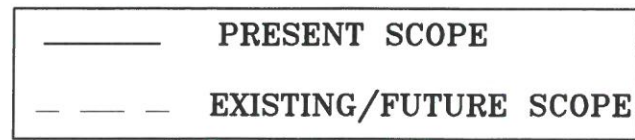
							DATE	DRAWN	SCALE	DRG.NO.	REV
SDE (ENGG-S/S)	DCDE (ENGG-S/S)	DGM (ENGG-S/S)	DGM {CTU(P)}	GM {CTU(P)}	GM (ENGG-S/S)	ED (ENGG-S/S, T/L & CIVIL)	JUNE 2018	HIMANSHU	N.T.S	C/ENGG-SS/WR/BHUJ/SLD (SHEET 1 OF 4)	05
PREPARED BY						CLEARED BY			APPROVED BY		



NOTES:

- ## MARKED CIRCUIT BREAKERS SHALL BE EQUIPPED WITH CONTROLLED SWITCHING DEVICE AS PER TECHNICAL SPECIFICATION.

LEGENDS:



SDE (ENGG-S/S)	DCDE (ENGG-S/S)	DGM (ENGG-S/S)	DGM {CTU(P)}	GM {CTU(P)}	GM (ENGG-S/S)	ED (ENGG-S/S, T/L & CIVIL)
PREPARED BY			CLEARED BY			APPROVED BY

FOR FR/TENDER PURPOSE ONLY.

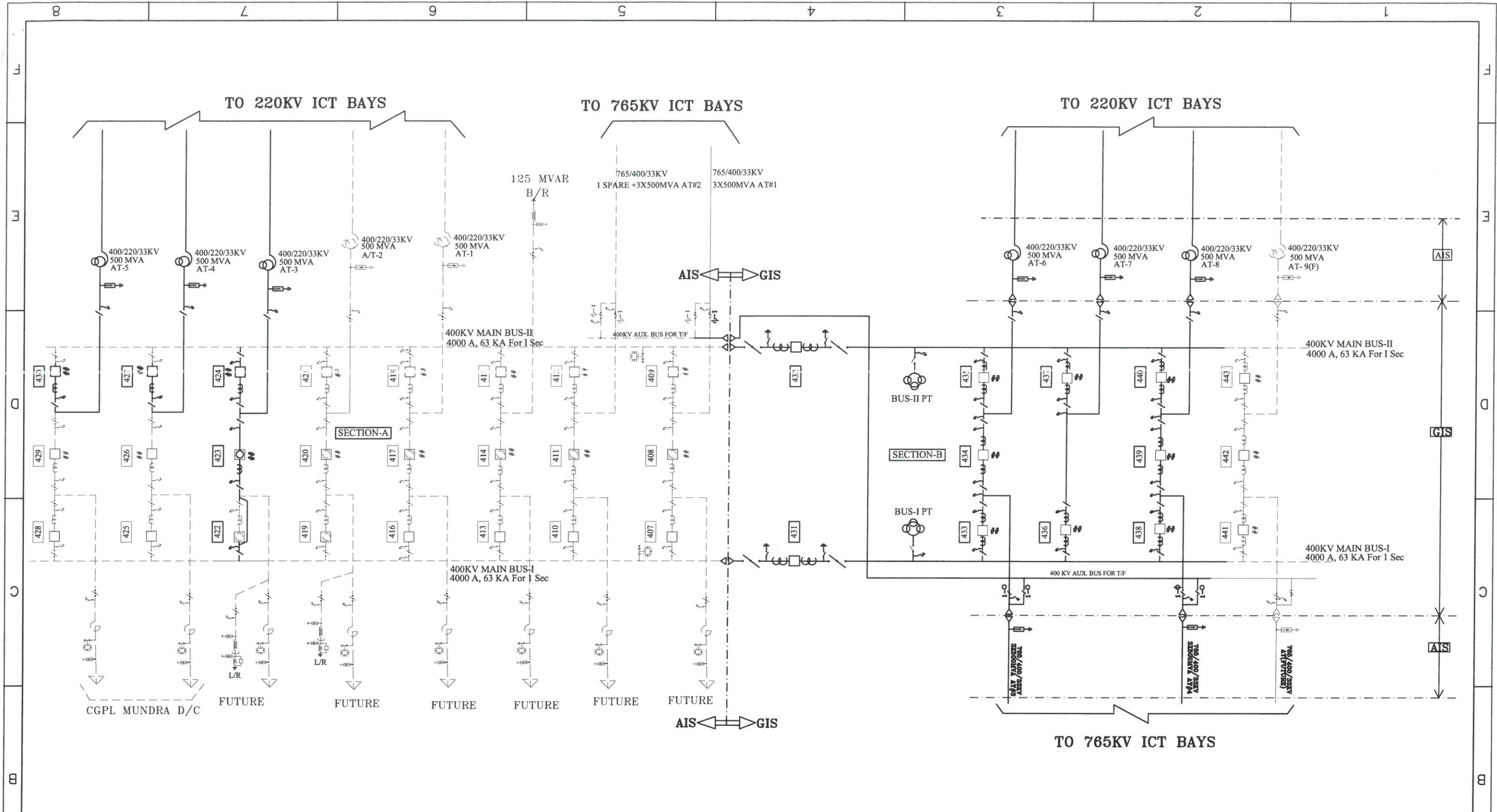
POWER GRID CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)

PROJECT: SYSTEM STRENGTHENING SCHEME AT BHUJ PS.

SUBSTATION: 765/400/220KV BHUJ POOL SUBSTATION

TITLE: SINGLE LINE DIAGRAM - 765KV

DATE	DRAWN	SCALE	DRG.NO.	REV
JUNE 2018	HIMANSHU	N.T.S	C/ENGG-SS/WR/BHUJ/SLD (SHEET 2 OF 4)	05



NOTES:

- ## MARKED CIRCUIT BREAKERS SHALL BE EQUIPPED WITH CONTROLLED SWITCHING DEVICE AS PER TECHNICAL SPECIFICATION.

LEGENDS:

—	PRESENT SCOPE
- - -	EXISTING/FUTURE SCOPE

<i>Paris</i>	<i>Kirap</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>N.O.</i>	<i>[Signature]</i>	<i>[Signature]</i>	
SDE (ENGG-S/S)	DCDE (ENGG-S/S)	DGM (ENGG-S/S)	DGM {CTU(P)}	GM {CTU(P)}	GM (ENGG-S/S)	ED (ENGG-S/S, T/L & CIVIL)	
PREPARED BY		CLEARED BY					APPROVED BY

FOR FR/TENDER PURPOSE ONLY.

POWER GRID CORPORATION OF INDIA LIMITED

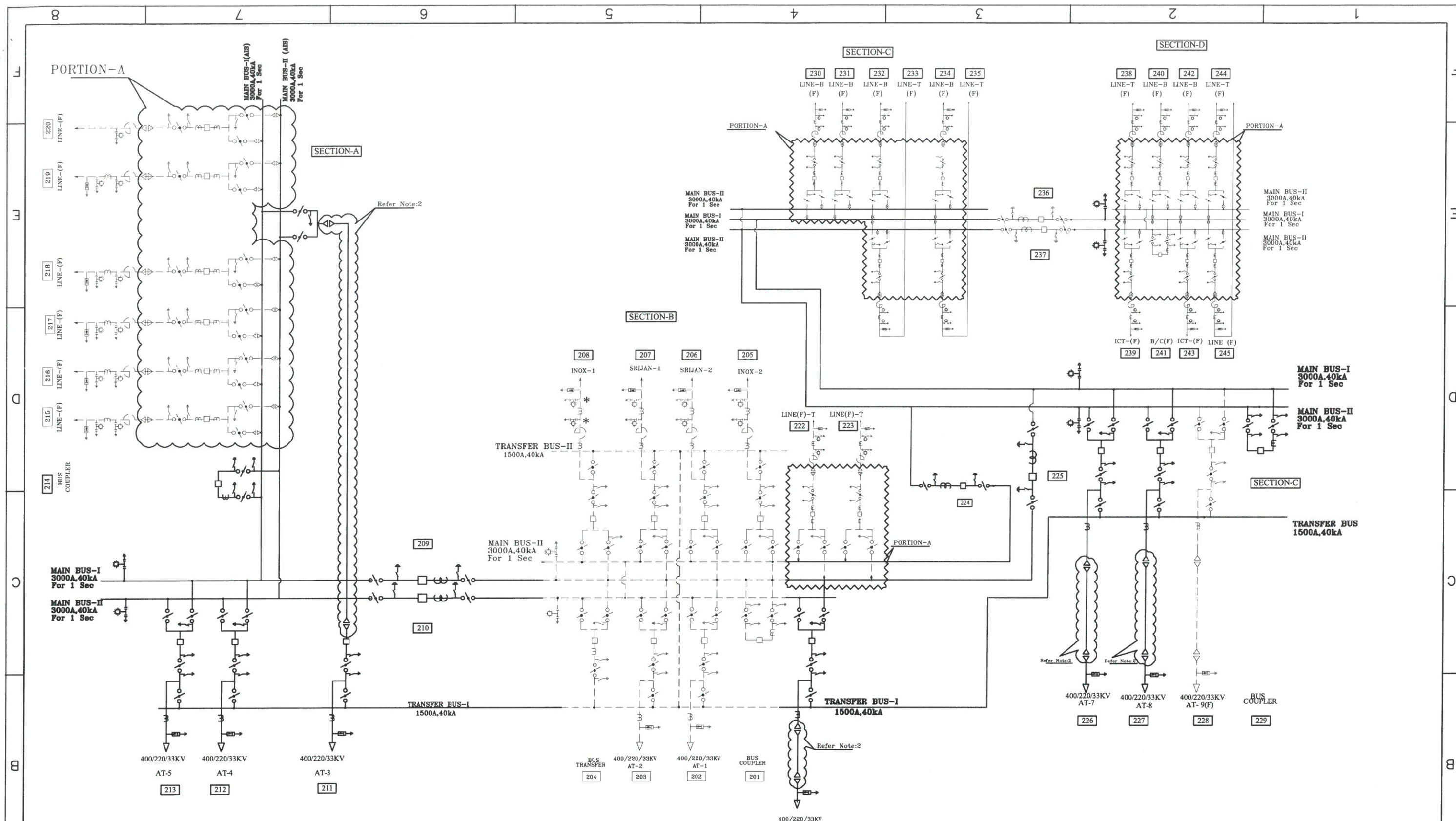
(A GOVERNMENT OF INDIA ENTERPRISE)

PROJECT:
SYSTEM STRENGTHENING SCHEME AT BHUJ PS.

SUBSTATION:
765/400/220KV BHUJ POOL SUBSTATION

TITLE:
SINGLE LINE DIAGRAM - 400KV

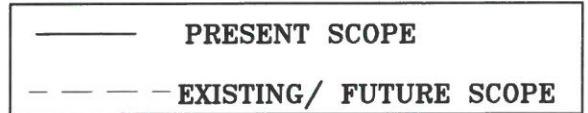
DATE	DRAWN	SCALE	DRG.NO.	REV
JUNE 2018	HIMANSHU	N.T.S	C/ENGG-SS/WR/BHUJ/SLD (SHEET 3 OF 4)	05



NOTES:

- FOR PORTION-A MARKED ABOVE, MAIN BUS SHALL BE AIS TYPE AND SWITCHGEAR SHALL BE OUTDOOR GIS TYPE.
- PORTION-B : 220KV GIS BUS DUCT ALONGWITH ASSOCIATED SF6 TO AIR BUSHING.

LEGENDS:



SDE (ENGG-S/S)	DCDE (ENGG-S/S)	DGM (ENGG-S/S)	DGM {CTU(P)}	GM {CTU(P)}	GM (ENGG-S/S)	ED (ENGG-S/S, T/L & CIVIL)
PREPARED BY	CLEARED BY			APPROVED BY		

FOR FR/TENDER PURPOSE ONLY.

POWER GRID CORPORATION OF INDIA LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE)

PROJECT:
SYSTEM STRENGTHENING SCHEME AT BHUJ PS.

SUBSTATION:
765/400/220KV BHUJ POOL SUBSTATION

TITLE:
SINGLE LINE DIAGRAM - 220KV

DATE	DRAWN	SCALE	DRG.NO.	REV
JUNE 2018	HIMANSHU	N.T.S	C/ENGG-SS/WR/BHUJ/SLD (SHEET 4 OF 4)	05