

ANNEXURE_SPARES_ JABALPUR

**BOQ FOR BREAK-UP OF MANDATORY SPARES (SPECIFIED AS LOT ITEMS
IN BID PRICE SCHEDULE)**

Sl. No.	Item Description	Unit	QUANTITY
E	420kV SF6 Circuit Breaker		
1	One Complete Pole of 420kV, 3150A CB without PIR Pole column interrupter, with driving mechanism and Marshaling Box but without support structure.	Pole	1
2	Grading capacitor (if applicable)	No	1
3	Rubber gasket, 'O' rings and seal (For Complete replacement for one phase)	Set	1
4	Trip coils with resistor	Nos.	3
5	Closing coils with resistor	Nos.	3
6	Terminal Pad with connector	Nos.	2
7	Molecular filter (For Complete replacement for one phase)	Nos	2
8	Corona Rings	Nos	1
9	Relay Power contactors, switch fuse units, limit switches, push button, timers & MCB etc (One No. of each Type)	Set	1
10	Pressure switch of each type/Density monitor (One No. of each Type)	Set	1
11	Auxiliary switch assembly (For one Phase of CB)	Set	1
F	420 kV Isolator		
	3150A, Isolator with one E/S		
1	One complete pole of Isolator including support insulator with 1 E/S with operating mechanism for main isolator and earth switch (excluding support structure)	No.	1
2	Copper contact fingers for female & male contacts	set	2
3	Open/Close Contactor Assembly, Timer, Key Interlock push button switch & auxiliary switches	set	1
4	Limit switch	Nos.	2
5	Terminal pads & Connectors	no	3
6	Corona shielding ring	Nos.	3
G	400kV Current Transformer		
	3000A, with 120% extended current rating	Nos	1
H	336kV Surge Arrester		
1	336kV Surge arrester complete with insulating base and terminal connectors (of each type)	No.	1
2	Surge counter/monitor	Nos.	5

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Sl. No.	Item Description	Unit	QUANTITY
I	220kV SF6 Circuit Breaker		
1	One Complete Pole of 220kV CB Pole column interrupter, with driving mechanism and Marshaling Box but without support structure.		
i	1600 A, 40 KA (No. of Pole)	Nos	1
2	Rubber gasket, 'O' rings and seal (For Complete replacement for one phase)	Set	1
3	Trip coils with resistor	Nos.	3
4	Closing coils with resistor	Nos.	3
5	Terminal Pad of each rating	Nos.	2
6	Molecular filter (For Complete replacement for one phase)	Nos	2
7	Corona Rings	Nos	1
8	Relay Power contactors, switch fuse units, limit switches, push button, timers & MCB etc (One No. of each Type)	Set	1
9	Pressure switch of each type/Density monitor (One No. of each Type)	Set	1
10	Auxiliary switch assembly (For one Phase of CB)	Set	1
J	220 kV Isolator		
J.1	1600A, Isolator with one E/S		
1	One complete pole of Isolator including support insulator with 1 E/S with operating mechanism for main isolator and earth switch (excluding support structure)	No.	1
2	Copper contact fingers for female & male contacts	set	2
3	Open/Close Contactor Assembly, Timer, Key Interlock push button switch & auxiliary switches	set	1
4	Limit switch	Nos.	2
5	Terminal pads & Connectors	no	3
6	Corona shielding ring	Nos.	3
J.2	1600A, Isolator without E/S (Tandem Isolator)		
1	One complete pole of Isolator including support insulator without E/S with operating mechanism for main isolator and earth switch (excluding support structure)	No.	1
2	Copper contact fingers for female & male contacts	set	2

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Sl. No.	Item Description	Unit	QUANTITY
3	Open/Close Contactor Assembly, Timer, Key Interlock push button switch & auxiliary switches	set	1
4	Limit switch	Nos.	2
5	Terminal pads & Connectors	no	3
6	Corona shielding ring	Nos.	3
G	220kV Current Transformer		
	1600A, with 120% extended current rating	Nos	1
K	216kV Surge Arrester		
i	216kV Surge arrester complete with insulating base and terminal connectors (of each type)	No.	1
L.1	Relay and Protection system Transformer Protection panel		
a	Transformer Differential Protection Relay	Nos	1
b	Restricted Earth Fault Protection Relay with non linear resistor	Nos	1
M	Sub-Station Automation /SCADA system		
1	Bay control unit (IED) of each type	Nos.	1
2	Ethernet switch of each type	Nos.	1
N	Fire Protection System		
1	Deluge Valve (of each type)	Set	1
P	500MVA Transformer		
a	Bushing of each rating with metal parts & gaskets and lifting tools		
(i)	420kV, 1250A RIP Bushing	-	1
(ii)	245kV, 2000A RIP Bushing	-	1
(iii)	52kV, 3150A RIP Bushing	-	1
(iv)	36kV, 3150A Bushing	-	1
b	Oil cooler pump with motor	Set	1
c	Cooler fan with motor	No	1
d	Buchholz relay (Main tank) complete with float and contacts	Set	1
e	Local & remote WTI with sensing device & contact	Set	1

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Sl. No.	Item Description	Unit	QUANTITY
f	Magnetic Oil level gauge	No	1
g	Starter, Contactor, switches & relays for electrical control panel (One set of each type)		
h	Remote Tap position Indicator	No	1
i	Oil flow indicator with flow switch	Set	1
j	Spare insulating oil to be handed over to POWERGRID after commissioning for O&M requirements.	KL	10