

Sl	List of Mandatory Spares	Unit	Qty
33.1	500 MVA, 400/220/33 kV Single Phase Auto Transformer		
1	Oil cooler pump with motor	Set	1
2	Cooler Fan with motor	No.	1
3	Local & Remote WTI with sensing device & contact (each type)	Set	1
4	Buchholz relay complete with float & contacts (Main tank)	Set	1
5	Magnetic oil level gauge	No.	1
6	Starters, contactors, switches & relays for electrical control panels (one set of each type)	Set	1
7	Remote tap position Indicator	No.	1
8	Oil Flow indicator with flow switch	Set	1
9	420kV Bushing with metal parts, gaskets and lifting tools	Set	1
10	245kV Bushing with metal parts, gaskets and lifting tools	Set	1
11	52kV Bushing with metal parts, gaskets and lifting tools	Set	1
12	36kV Bushing with metal parts, gaskets and lifting tools	KL	10
13	Spare insulating oil to be handed over to POWERGRID after commissioning for O&M requirement		
33.2	400kV 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 structure)	Nos.	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 (of each type)	no	3
6	Corona shielding ring	Nos.	3
33.3	220kV SF6 Circuit Breaker		
1	One Complete Pole of 220kV CB Pole column interrupter, with driving mechanism and Marshaling Box but without support structure.	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

Sl	List of Mandatory Spares	Unit	Qty
10	Auxiliary switch assembly (For one Phase of CB)	Set	1
			0
33.4	220 KV Current Transformer(1-Ph) complete in all respects including terminal connector (of each type)		
1	1600A, 40kA, 150 % extended current rating	No.	1
33.5	220kV, 4400pf CVT (1-Ph) complete in all respects including terminal connector (of each type)	No.	1
33.6	216kV Surge Arrester		
1	216kV Surge arrester complete with insulating base and terminal connectors (of each type)	No.	1
2	Surge counter/ monitor	Nos.	5
33.7	220kV Isolator		
33.7.1	1600A, 40kA 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 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 (of each type)	no	3
6	Corona shielding ring	Nos.	3
33.7.2	2500A, 40kA Isolator with two E/S		
1	One complete pole of Isolator including support insulator with 2 E/S with operating mechanism for main isolator and earth switch (excluding 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 (of each type)	no	3
6	Corona shielding ring	Nos.	3
33.8	Bus Post Insulator		
1	245 kV	No.	1