

Remark - The spare list is provisional and minor changes may occur during detailed engineering stage. Bidder to quote lump sum in bid price schedule.

SI	Description	Unit	QTY.
S1	420 KV GIS Mandatory Maintenance Equipment (B1 to B5)		
1	B1-SF6 Gas Filling and Evacuating Plant with Wheeled Trolley	No	1
2	B2-SF6 Gas Filtering, Drying, Storage and Recycling Plant with Wheeled Trolley	No	1
3	B3-SF6 Gas Leak Detector	No	2
4	B4-Breaker Operation Analyzer with transducers	No	1
5	B5-Nitrogen Filling Device (applicable for hydraulically operated mechanisms), if required	No	1
S2	420 KV GIS Mandatory Spares (C1 to C14)		
1	C1-Set of gaskets and seals (1set =1no. of each type)	Set	1
2	C2-Support Insulator of bus bar (1set =1no. of each type)	Set	3
3	C3-Breaker module complete (1 pole complete with enclosure and without mechanism box)	Set	1
4	C4-Disconnecter with One Earthswitch module (1set =1no. of each type) (1 pole complete with enclosure and without mechanism box)	Set	1
5	C5-Current Transformer (1set =1no. of each type)	Set	1
6	C6-Voltage Transformer (1set =1no. of each type)	Set	1
7	C7-High speed earth switch (3 pole complete with enclosure and without mechanism box)	Set	1
8	C8-Gas monitoring System devices (1set =1no. gas monitoring device of each type and rating)	Set	1
9	C9-Control switches, control relays, Contacts, monitoring devices etc (One set consisting one no. of each type and rating of each item)	Set	1
10	C10-Tripping coils for 400 kV Circuit breakers (1 set= 1no. tripping coil of each type & rating)	Set	6
11	C11-Closing coils for 400 kV circuit breakers (1 set= 1no. closing coil of each type and rating)	Set	6
12	C12-Rupture disc (1 set =1no. of each type)	Set	2
13	C13-Gas tight bushing (1 set =1no. of each type)	Set	2
14	C14-Gas density relay (1 set =1no. of each type)	Set	2
S3	LV SWITCHGEAR		
1	Complete pole of breaker	1 no of each type and rating	
2	Spring charging motors	6 nos.	
3	Aux. contact set	12 set.	
4	Limit switches	6 nos.	
5	Arc chutes	4 nos.	
6	Fixed contact set	6 sets	
7	Moving contact set	6 sets	
8	Arcing contact	6 sets	

Remark - The spare list is provisional and minor changes may occur during detailed engineering stage. Bidder to quote lump sum in bid price schedule.

SI	Description	Unit	QTY.
9	Charging spring	3 nos.	
10	Current transformer (metering)	3 nos.	
11	Current transformer (protection)	3 nos.	
12	Closing coil	12 nos.	
13	Trip coil	12 nos.	
14	CT for Bimetal O/L relays	1 no of each type and rating.	
15	Voltage transformer	3 nos. each	
16	Control supply transformer	1 no each rating.	
17	Ammeter	1 no of each rating and size.	
18	Voltmeter	1 no of each rating and size.	
19	Relays	1 no of each type and rating.	
20	Power contactor	5 nos of each rating.	
21	Coil of above contactor	10 nos.	
22	Air break switches	10 % of each rating.	
23	DP air break switches (DC)	2 nos. each	
24	Control & selector switches	5 % of each type and size.	
25	Control fuses & neutral links	30 % Of population for fuses, 10 % Of population for link.	
26	Indicating lamps	20 % of installed quantity.	
27	Bus bar support insulators(each type)	5 % of installed quantity.	
28	Bus duct flexible connectors	1 no of each type.	
29	Primary disconnect in MCC (Male/ female contact)	1 set of each rating.	
30	Push buttons	10 % of each type.	
31	Power fuses	50 % of each type.	
32	Thermal bimetal relays	6 nos. of each rating and size.	
33	Indication Lamp Holders complete	20 % of installed quantity.	
34	Maintenance tools and accessories for Maintenance (bidder to list)	3 nos.	
35	Terminal blocks	10 % of installed quantity.	
36	Busbar aluminium flat pieces	12 meters of each size.	
37	Busbar angles/formed pieces for breaker	1 no.	
S4	LV TRANSFORMERS		
1	Limb of complete LT and HT of temperature sensing devices	1 Set.	

Remark - The spare list is provisional and minor changes may occur during detailed engineering stage. Bidder to quote lump sum in bid price schedule.

SI	Description	Unit	QTY.
2	Bushing (if provided as a separate item on transformers offered) HV, LV and LV Neutral.	3 Nos.	
3	Tap changer Contacts	1 set.	
S5	BATTERY		
	Supply Items-Mandatory Spares for 220V Battery bank		
1	Battery cell (1 no. of each type)	Set	1
2	Cell container (1no. of each type)	Set	1
3	Level indicator (if applicable separately) (1 no. of each type)	Set	1
4	Vent plugs (10 no. of each type)	Set	1
5	Inter-cell connector (10no. of each type)	Set	1
6	Set of nuts, bolts and washer (20no. of each type)	Set	1
	Supply Items-Mandatory Spares for 48V Battery bank		
7	Battery cell (1nos. of each type)	Set	1
8	Cell container (1nos. of each type)	Set	1
9	Level indicator (if applicable separately) (1 no. of each type)	Set	1
10	Vent plugs (10nos. of each type)	Set	1
11	Inter-cell connector (10nos. of each type)	Set	1
12	Set of nuts, bolts and washer (20nos. of each type)	Set	1
S6	BATTERY CHARGERS		
	Supply Items-Mandatory Spares for 220V, 150A Float cum Boost Charger		
1	Electronic cards with all components mounted (1set of each type & rating)	Lot	1
2	Fuses (4nos. of each type & rating)	Set	1
3	SCR (6nos. of each type & rating)	Set	1
4	Blocking diode (6sets of each type & rating)	Lot	1
5	Potentiometer (sets of each type & rating)	Set	1
	Supply Items-Mandatory Spares for 48V, 50A Float cum Boost Charger		
6	Electronic cards with all components mounted (1set of each type & rating)	Lot	1
7	Fuses (4nos. of each type & rating)	Set	1
8	SCR (6nos. of each type & rating)	Set	1
9	Blocking diode (6sets of each type & rating)	Lot	1
10	Potentiometer (sets of each type & rating)	Set	1
S7	POWER AND CONTROL CABLES		
1	19/33 KV Grade power cables for each type & size	10% of installed quantity	
2	1.1 KV Grade power cables for each type & size	10% of installed quantity	
3	1.1 KV Grade power cables for each type & size	10% of installed quantity	
S8	TEST EQUIPMENTS		

Remark - The spare list is provisional and minor changes may occur during detailed engineering stage. Bidder to quote lump sum in bid price schedule.

Sl	Description	Unit	QTY.
1	Portable Circuit Breaker Motion Analyser	Nos	1
2	Portable High Voltage/Live Line Detector ,220kV	Nos	1
3	Portable Primary Current Injection Test Kit	Nos	1
4	Portable Secondary Current Injection Test Kit	Nos	1
5	Portable Hand held SF6 Gas Leakage Detector	Nos	2
6	Portable, Hand-held Thermal Imaging Camera	Nos	1
7	HV Discharge Rod & Portable Earthing Equipment	Nos	2
8	Hot Sticks (Live/Dead Line Tester) ,400kV	Nos	2
9	Leakage current analyser for Lightning Arrestor	Nos	1
S9	390 kV / 360 kV, 1 Phase, Gapless type Metal Oxide Surge Arrester		
1	One complete pole of LA with terminal connector excluding structure	Nos	1
S10	420kV POST INSULATOR		
1	One complete pole of BPI with terminal connector excluding structure	Nos	1
S11	Tele communication Equipment		
1	List of items will be derived during detailed engineering stage	Lot	1
S12	Control / Relay / SAS Panel Spare including relays		
1	List of items will be derived during detailed engineering stage	Lot	1