

BREAK-UP OF MANDATORY SPARES FOR SUB STATION EQUIPMENT (AIS)

Sr. No.	Description	Unit	Quantity for Shujalpur SS
A	2 no. 220kV line bays at Shujalpur S/s		
1	CIRCUIT BREAKER		
(I)	245KV CIRCUIT BREAKER		
a)	Complete Pole of 245kV, 1600A, 50kA SF6Circuit Breaker including closing resistor (if applicable), grading capacitor (if applicable), pole column, interrupter with driving mechanism and Marshalling Box but without support structure	EA	1
b)	Rubber gasket, O rings and seals for SF6 gas (complete replacement for one 245kV SF6 Circuit Breaker)	SET	2
c)	Trip coil with resistor for 245kV Circuit Breaker	EA	2
d)	Closing coil with resistor for 245kV Circuit Breaker	EA	2
e)	Terminal pad for 245kV SF6 Circuit Breaker	EA	2
f)	Molecular filter for 245kV SF6 Circuit Breaker	EA	2
g)	CORONA RING FOR 245KV SF6 CIRCUIT BREAKER	EA	1
h)	Relays, Power contactors, SFU, limit switches, push buttons, timers & MCB etc. (1 No of each type) for 245kV SF6 Circuit Breaker	SET	1
i)	SF6 Pressure gauge cum switch OR Density monitors and pressure switch as applicable (1 no. of each type)	SET	1
j)	Aux. Switch assembly for 245kV, SF6 Circuit Breaker	SET	1
k)	Operation counter for 245kV Circuit Breaker	EA	1
l)	COMPLETE SET OF SPRING OPERATING MECHANISM FOR 245KV SF6 CIRCUITBREAKER	EA	1
m)	SF6 GAS (40% ORDERED QUANTITY)	LS	1
2	ISOLATORS		
(I)	245KV ISOLATOR		
a)	Complete pole for 245kV, 1600 A isolator with 1 earth switch including support Insulator, motor operating mechanism (MOM) with box but excluding structure	EA	1
b)	Copper contact fingers for female & male contacts of 245kV Double Break Isolator	SET	2
c)	Open / Close contactor assembly, timers, key interlock push button switch & auxiliary switches for 245kV Isolator	SET	1
d)	Limit switch for 245kV Isolator	SET	2
e)	Terminal pads & connectors (of each type) for 245kV 1600A DB Isolator	EA	3

f)	Corona shield rings for 245 kV DB isolator	EA	3
3	SURGE ARRESTOR		
(I)	216kV SURGE ARRESTER		
a)	216kV Surge Arrester (1-phase)	EA	1
b)	Surge monitor (1-Phase)	EA	2
4	CURRENT TRANSFORMER		
(I)	245KV CT		
a)	245 kV, 1600A, 50KA, 1-Phase Current Transformer with 120% extended current rating	EA	1
5	CAPACITIVE VOLTAGE TRANSFORMER		
(I)	245kV CVT		
a)	245 kV, 4400pf Capacitive Voltage Transformer (1- Phase)	EA	1
6	BUS POST INSULATOR		
(I)	245kV BPI		
a)	245 kV, 1 phase Bus Post Insulator (except for Line Traps)	EA	1
7	Relay & protection Panels (with automation)		
a)	ETHERNET SWITCH SUITABLE FOR 19" RACK MOUNTING WITH 24 FIBER OPTIC PORTS	EA	1
b)	ETHERNET SWITCH SUITABLE FOR 19" RACK MOUNTING WITH 12 COPPER + 6 FIBER OPTIC PORTS	EA	1
c)	Line Current Differential Relay	SET	1
8	Substation Automation System		
a)	Bay control unit (IED) of each type	EA	1