

Substation Package SS02 for (i) Extension of 400 kV Biharsharif S/S alongwith 1X125 MVAR,400 kV B/R, (ii)Extension of 400 kV Jamshedpur S/S alongwith 2X125 MVAR,400 kV B/R, (iii) Extension of 400 kV Gazuwaka S/S alongwith 1X125 MVAR,400 kV B/R, (iv)Extension of 400 kV Rengali S/S alongwith 2X125 MVAR,400 kV B/R, (v) Extension of 400 kV Rourkela S/S alongwith 1X125 MVAR,400 kV B/R, (vi) Extension of 400 kV Durgapur S/S alongwith 2X125 MVAR,400 kV B/R, (vii)Extension of 400 kV Gorakhpur S/S under Eastern Region Strengthening Scheme-IX

Mandatory Spares			
Sl. No.	Item Description	Unit	Quantity
1	2	3	4
IV	400KV RENGALI SUBSTATION EXTN.		
C.1	125 MVAR, 420kV Bus reactor		
i)	Buchholz Relay(Main Tank) complete with float & contacts	Set	1
ii)	Local & Remote WTI with sensing device & contacts	Set	1
iii)	Oil temperature indicator with contacts & sensing device	no	1
iv)	Bushing of each Rating with metal parts & gaskets and lifting tools	Set	1
v)	Spare insulating oil to be handed over to POWERGRID after commissioning for O&M req	KL	10
C.2	420 kV Circuit Breaker		
i)	Complete Pole of circuit breaker including closing resistor,grading capacitor, pole column, interrupter, with driving mechanism and Marshaling Box but without support structure for 3150 A, 40 KA (No. of Pole)	no	1
ii)	Grading Capacitor	no	1
iii)	Rubber gaskets, 'O' rings and seals	set	1
iv)	Trip coils with resistor	nos	2
v)	Closing coils with resistor	no	1
vi)	Terminal Pads & connectors	nos	2
vii)	Molecular filter	nos	2
viii)	Corona rings	no	1
ix)	Relays, Power contactors, switch fuse units, limit switches, push buttons, timers & MCB	set	1
x)	Pressure switches of each type	set	1
xi)	Auxiliary switch assembly	set	1
C.3	420 kV Double Break Isolator		
i)	One complete pole including support Insulator, motor operating mechanism (MOM) with box but excluding structure 3150A, 40 KA, 1 E/S (no. of pole)	no	1
ii)	Copper contact fingers for male & female contacts	set	2
iii)	Open/Close contactor assembly, timers, key interlock push button switch & auxilliary sw	set	1
iv)	Limit Switch	set	2
v)	Terminal Pads & Connectors	nos	3
vi)	Corona shield rings	nos	3
C.4	400 kV Current Transformer		
4.1	3000A, 40kA,120 % extended current rating	No.	1
C.5	336 kV Surge Arrester with insulating base, terminal connector, surge counter & accesso	Set	1
C.6	Control & Relay Panels		
6.1	Reactor Protection Panel		
i)	Reactor Differential Protection relay	Set	1
ii)	Reactor Back up impedance Relay	Set	1
iii)	Restricted earth fault protection relay with non-linear resistor	Set	1