

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
III	400KV BIHARSHARIF 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 requirement	KL	10
C.2	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 switches	set	1
iv)	Limit Switch	set	2
v)	Terminal Pads & Connectors	nos	3
vi)	Corona shield rings	nos	3
C.3	336 kV Surge Arrester with insulating base, terminal connector, surge counter & accessories	Set	1
C.4	Control & Relay Panels		
4.1	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