

BILL OF QUANTITIES FOR ERECTION, TESTING AND COMMISSIONING

PROJECT : 400/220/33 KV DURGAPUR SUBSTATION
CUSTOMER : WEST BENGAL STATE ELECTRICITY BOARD

Rev. 00

A. MAIN SCOPE

S.No.	Description of Item	Unit	Qty	Rate	Amount
1	REVAMPING OF 105 MVA, 400/220/33 KV SINGLE PHASE AUTO POWER TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR	Nos.	7		
2	1500 KVA,-33/0.4 KV, 3 PHASE, 2 WINDING STATION SERVICE TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR	Nos	2		
3	50 MVAR, 420 KV BUS REACTOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR	Nos	1		
4	400 KV, 2000 A, 40 KA, SF6 WITH PIR 3 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 4" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	4		
5	400 KV, 2000 A, 40 KA, SF6 WITHOUT PIR 3 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 4" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	4		
6	220 KV, 1600 A, 40 KA, SF6, 1 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 3" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	1		
7	36 KV, 1600 A, 31.5 KA, VCB, 3 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 2" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	2		
8	400 KV, 2000 A, 40 KA, 3 PHASE, MOTOR OPERATED, ELECTRICALLY GANGED, PANTOGRAPH ISOLATOR WITH ONE EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	10		
9	400 KV, 2000 A, 40 KA, 3 PHASE, MOTOR OPERATED, ELECTRICALLY GANGED, PANTOGRAPH ISOLATOR WITHOUT EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	13		

A. MAIN SCOPE

S.No.	Description of Item	Unit	Qty	Rate	Amount
10	400 KV, 2000 A, 40 KA, 3 PAHSE, MOTOR OPERATED, ELECTRICALLY GANGED, HORIZONTAL CENTRE BREAK ISOLATOR WITH TWO EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	6		
11	220 KV, 1600 A, 40 KA, 3 PAHSE, MOTOR OPERATED, MECHANICALLY GANGED, HORIZONTAL CENTRE BREAK ISOLATOR WITH ONE EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	2		
12	220 KV, 1600 A, 40 KA, 3 PAHSE, MOTOR OPERATED, MECHANICALLY GANGED, HORIZONTAL CENTRE BREAK ISOLATOR WITHOUT EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	1		
13	36 KV, 1600 A, 31.5 KA, 3 PAHSE, MANUAL OPERATED, MECHANICALLY GANGED, HORIZONTAL DOUBLE BREAK ISOLATOR WITHOUT EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	5		
14	360 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	18		
15	198 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	7		
16	54 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	6		
17	42 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	6		
18	400 KV 2000 A, 40 KA, 5 CORE, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPECURRENT TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	27		
19	220 KV 1000 A, 40 KA, 5 CORE, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPECURRENT TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	7		

A. MAIN SCOPE

S.No.	Description of Item	Unit	Qty	Rate	Amount
20	33 KV 200 A, 31.5 KA, 3 CORE, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE CURRENT TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	6		
21	400 KV, THREE WINDING, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE, CAPACITOR VOLTAGE TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	23		
22	33 KV, TWO WINDING, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE, VOLTAGE TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	6		
23	FEEDER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	3		
24	BUS REACTOR CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	1		
25	TRANSFORMER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	2		
26	BUS COUPLER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	1		
27	BUS TRANSFER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	1		
28	SYNCHRONISING TROLLEY (400 KV)	Nos	1		
29	BLANK PANEL FOR PPSP BAY (400 KV)(DUPLEX TYPE)	Nos	2		
30	TRANSFORMER CONTROL PANEL(220 KV SIDE)(DUPLEX TYPE)	Nos	1		
31	FEEDER CONTROL PANEL(33 KV)(DUPLEX TYPE)	Nos	1		
32	FEEDER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	3		
33	BUS REACTOR PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	1		
34	TRANSFORMER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	2		
35	BUS COUPLER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	1		
36	BUS TRANSFER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	1		
37	33 KV SURGE CAPACITOR (FOR 400/220KV TRANSFORMER)	Nos.	12		
38	AC DISTRIBUTION BOARD	Nos.	1		
39	DC DISTRIBUTION BOARD	Nos.	2		
40	220 VOLT (300AH) LEAD ACID BATTERY	Nos.	2		
41	BATTERY CHARGER SUITABLE FOR 220 VOLT (300AH) LEAD ACID BATTERY	Nos.	2		
42	400 KV OUTDOOR, 8 KN, SOLIDCORE BUS POST INSULATOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	144		
43	220 KV OUTDOOR, 8 KN, SOLIDCORE BUS POST INSULATOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	20		
44	33 KV OUTDOOR, 8 KN, SOLIDCORE BUS POST INSULATOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	80		

A. MAIN SCOPE

S.No.	Description of Item	Unit	Qty	Rate	Amount
45	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND TURN BUCKLE SET SUITABLE FOR QUAD ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	33		
46	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND WITHOUT TURN BUCKLE SET SUITABLE FOR QUAD ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	33		
47	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	30		
48	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND WITHOUT TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	30		
49	220 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X15 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 250MM).	Nos.	27		
50	220 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X15 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND WITHOUT TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 250MM).	Nos.	27		
51	400 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND DROP TYPE SUSPENSION CLAMP SUITABLE FOR QUAD. ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	6		
52	400 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND THROUGH TYPE SUSPENSION CLAMP SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	12		

A. MAIN SCOPE

S.No.	Description of Item	Unit	Qty	Rate	Amount
53	400 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND DROP TYPE SUSPENSION CLAMP SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	9		
54	220 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X15 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND THROUGH TYPE SUSPENSION CLAMP SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 250MM).	Nos.	15		
55	DISC INSULATORS (160 KN)	Nos.	8820		
56	4" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Mtr.	2750		
57	3" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Mtr.	920		
58	2" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Lot	1		
59	1.5" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Lot	1		
60	ACSR "MOOSE" CONDUCTOR COMPLETE WITH TEE CONNECTORS FOR DROPPERS TO EQUIPMENT CONNECTION, PG CLAMP FOR BUSBAR JUMPERING, TWIN/QUAD. BUNDLE SPACERS, SAG COMPENSATING SPRINGS FOR PATOGRAPH ISOLATORS ETC. TO COMPLETE	km	18		
61	1.1/33 KV EXTRUDED HR PVC/XLPE INSULATION AND FRLS PVC OVERSHEATHED ARMOURED POWER & CONTROL CABLES. CABLING INCULEDES LAYING, DRESSING AND GLANDING, TERMINATION OF CABLES- LAYING CAN BE EITHER ON TRAYS, SUPPORTS, UNDERGROUND, OVER GROUND ETC. IN OUTDOOR YARD OR CONTROL ROOM BUILDING. GLANDS WILL BE SUPPLIED BY BHEL AND ALL OTHER ERECTION MATERIALS VIZ. FERRULES, LUGS, CABLE TIES/STRAPS, MARKERS ETC. INCLUDED IN THE QUOTED RATE.				
61.1	2CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	5		
61.2	5CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	14		
61.3	7CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	2		
61.4	10CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	32		
61.5	14CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	22		
61.6	19CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	23		
61.7	1CX630 SQ.MM ALUMINIUM, 1.1 KV, XLPE, FRLS CABLE	KM	2		
61.8	3.5CX300 SQ.MM ALUMINIUM, 1.1 KV, XLPE, FRLS CABLE	KM	5		
61.9	1CX150 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	0.5		
61.10	3.5CX70 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	12		
61.11	3.5CX35 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	13		
61.12	4CX16 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	9		
61.13	4CX6 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	4		
61.14	2CX6 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	3		

A. MAIN SCOPE

S.No.	Description of Item	Unit	Qty	Rate	Amount
61.15	33 KV CABLE 3 CORE 50 SQ.MM XLPE FOR UNEARTH SYSTEM	Mtr.	1300		
61.16	1 CORE PVC ARMoured 1.1 KV FOR UNEARTHED SYSTEM	Mtr.	2500		
61.17	33 KV CABLE TERMINATION KIT (OUTDOOR)	Nos.	6		
61.18	STRAIGHT THROUGH JOINT KIT FOR 33 KV CABLE	Lot	2		
62	SUB-STATION LIGHTING SYSTEM	Lot	1		
63	FIRE-FIGHTING, FIRE HYDRANT & PROTECTION SYSTEM	Lot	1		
64	EARTHING MAT COMPLETE (BALANCE WORK)				
64.1	32 MM DIA MS ROD	KM	40		
64.2	75X8 GS FLAT FOR EQUIPMENT EARTHING AND FOR RISERS	KM	8		
64.3	50X6 GS FLAT FOR BOX AND TRENCH EARTHING	KM	8		
64.4	40 DIA PIPE ELECTRODE	Nos.	90		
65	500 MM WIDE, 2500 MM LONG GALVANISED PERFORATED TRAY	Nos.	1800		
66	300 MM WIDE, 2500 MM LONG GALVANISED PERFORATED TRAY	Nos.	1100		
67	MARSHALLING KIOSK	Nos.	8		
68	JUNCTION BOX CT & CVT	Nos.	22		
69	PHASE COLOUR DISCS, DANGER PLATE ETC.	Lot	1		
70	PLCC EQUIPMENTS				
70.1	LINE TRAP				
70.2	400 KV, 2000 A, 40 KA, 3 PAHSE, LINE TRAP COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	10		
70.3	COUPLING DEVICE (FOR PHASE TO PHASE COUPLING)	Nos.	5		
70.4	SINGLE CHANNEL PLC TERMINAL WITH PROTECTION COUPLER	Nos.	10		
70.5	SINGLE CHANNEL PLC TERMINAL WITHOUT PROTECION COUPLER	Nos.	6		
70.6	HF CABLE (METRE)	Mtr.	5100		
70.7	EPAX	Nos.	2		
70.8	TELEPHONE RECEIVER	Nos.	10		
70.9	TELEPHONE CABLE	Lot	1		
70.10	48 V BATTERY 300 AH	Nos.	2		
70.11	50 V BATTERY CHARGER 60 A	Nos.	2		
71	STRUCTURE				
71.1	LATTICE TYPE STRUCTURE	MT	576		
71.2	PIPE STRUCTURE	MT	141		
71.3	HARDWARES	MT	29		
71.4	FOUNDATION BOLTS	MT	54		
65	CONSTRUCTION OF STORES				
65.1	OPEN STORE	Sqm	1500		
65.2	COVERED STORE -Type A'-20MX10MX4.5M (200 Sqm)	Lot	1		
	TOTAL AMOUNT (Rs.)				

NOTES :

1	Loading / unloading, handling, shifting to & from stores, proper storage, assembly, installation, pre-commissioning test and commissioning tests are included in the scope.
2	MS Welding - apply red lead paint, then Aluminium paint, then Bitumin after welding.
3	GI Welding- apply two coats of cold galvanising anti-corrosive paint after welding.
4	10% welding joints and Aluminium tube shall be tested for dye-penetration test
5	Quoted rates are deemed to be inclusive of miscellaneous works viz phase colour discs, labels etc.
6	Lot quantity may vary from 1% to 20% of the main equipment supply.

**BILL OF QUANTITIES FOR LOADING, PACKING (IF REQUIRED) AND TRANSPORTATION FROM WBSEB STORE TO BHEL SITE
STORE**

PROJECT : 400/220/33 KV DURGAPUR SUBSTATION
CUSTOMER : WEST BENGAL STATE ELECTRICITY BOARD

Rev. 00

B. EQUIPMENTS/ MATERIALS ALREADY STORED IN WBSEB STORES

S.No.	Description of Item	Unit	Qty	Rate	Amount
1	REVAMPING OF 105 MVA, 400/220/33 KV SINGLE PHASE AUTO POWER TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR	Nos.	7		
2	1500 KVA, -33/0.4 KV, 3 PHASE, 2 WINDING STATION SERVICE TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR	Nos	0		
3	50 MVAR, 420 KV BUS REACTOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR	Nos	0		
4	400 KV, 2000 A, 40 KA, SF6 WITH PIR 3 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 4" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	3		
5	400 KV, 2000 A, 40 KA, SF6 WITHOUT PIR 3 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 4" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	4		
6	220 KV, 1600 A, 40 KA, SF6, 1 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 3" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	1		
7	36 KV, 1600 A, 31.5 KA, VCB, 3 PHASE, OUTDOOR TYPE, CIRCUIT BREAKER WITH SUPPORTING LATTICE STRUCTURE, RIGID/EXPANSION TYPE TERMINAL CONNECTOR SUITABLE FOR 2" AL. TUBE/ACSR CONDUCTOR, BREAKER CONTROL CABINETS AND INTERPOLE CABLING, GAS LEAKAGE DETECTOR, GAS FILLING EVACUATION KT, GAS DENSITY MONIITOR, MECHANISM BOX, GEAR BOX ASSEMBLY	Nos	0		
8	400 KV, 2000 A, 40 KA, 3 PHASE, MOTOR OPERATED, ELECTRICALLY GANGED, PANTOGRAPH ISOLATOR WITH ONE EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	8		
9	400 KV, 2000 A, 40 KA, 3 PHASE, MOTOR OPERATED, ELECTRICALLY GANGED, PANTOGRAPH ISOLATOR WITHOUT EARTHSWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	11		

B. EQUIPMENTS/ MATERIALS ALREADY STORED IN WBSEB STORES

S.No.	Description of Item	Unit	Qty	Rate	Amount
10	400 KV, 2000 A, 40 KA, 3 PAHSE, MOTOR OPERATED, ELECTRICALLY GANGED, HORIZONTAL CENTRE BREAK ISOLATOR WITH TWO EARTH SWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	5		
11	220 KV, 1600 A, 40 KA, 3 PAHSE, MOTOR OPERATED, MECHANICALLY GANGED, HORIZONTAL CENTRE BREAK ISOLATOR WITH ONE EARTH SWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	0		
12	220 KV, 1600 A, 40 KA, 3 PAHSE, MOTOR OPERATED, MECHANICALLY GANGED, HORIZONTAL CENTRE BREAK ISOLATOR WITHOUT EARTH SWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	1		
13	36 KV, 1600 A, 31.5 KA, 3 PAHSE, MANUAL OPERATED, MECHANICALLY GANGED, HORIZONTAL DOUBLE BREAK ISOLATOR WITHOUT EARTH SWITCH COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR, BASE FRAME, OPERATING MECHANISM TO COMPLETE	Nos	0		
14	360 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	17		
15	198 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	7		
16	54 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	6		
17	42 KV, 10 KA, HEAVY DUTY, STATION CLASS, GAPLESS METAL OXIDE LIGHTNING ARRESTER COMPLETE WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR, SURGE COUNTER, LEAKAGE CURRENT METER, INSULATING BASE, CONNECTING CABLE TO COMPLETE	Set	6		
18	400 KV 2000 A, 40 KA, 5 CORE, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE CURRENT TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	21		
19	220 KV 1000 A, 40 KA, 5 CORE, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE CURRENT TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	6		

B. EQUIPMENTS/ MATERIALS ALREADY STORED IN WBSEB STORES

S.No.	Description of Item	Unit	Qty	Rate	Amount
20	33 KV 200 A, 31.5 KA, 3 CORE, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE CURRENT TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	0		
21	400 KV, THREE WINDING, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE, CAPACITOR VOLTAGE TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	8		
22	33 KV, TWO WINDING, OUTDOOR OIL FILLED TYPE, SINGLE PHASE TYPE, VOLTAGE TRANSFORMER WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	0		
23	FEEDER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	3		
24	BUS REACTOR CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	1		
25	TRANSFORMER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	2		
26	BUS COUPLER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	1		
27	BUS TRANSFER CONTROL PANEL(400 KV)(DUPLEX TYPE)	Nos	1		
28	SYNCHRONISING TROLLEY (400 KV)	Nos	1		
29	BLANK PANEL FOR PPSP BAY (400 KV)(DUPLEX TYPE)	Nos	2		
30	TRANSFORMER CONTROL PANEL(220 KV SIDE)(DUPLEX TYPE)	Nos	1		
31	FEEDER CONTROL PANEL(33 KV)(DUPLEX TYPE)	Nos	0		
32	FEEDER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	3		
33	BUS REACTOR PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	1		
34	TRANSFORMER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	2		
35	BUS COUPLER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	1		
36	BUS TRANSFER PROTECTION PANEL(400 KV)(SIMPLEX TYPE)	Nos	1		
37	33 KV SURGE CAPACITOR (FOR 400/220KV TRANSFORMER)	Nos.	0		
38	AC DISTRIBUTION BOARD	Nos.	0		
39	DC DISTRIBUTION BOARD	Nos.	0		
40	220 VOLT (300AH) LEAD ACID BATTERY	Nos.	0		
41	BATTERY CHARGER SUITABLE FOR 220 VOLT (300AH) LEAD ACID BATTERY	Nos.	0		
42	400 KV OUTDOOR, 8 KN, SOLIDCORE BUS POST INSULATOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	129		
43	220 KV OUTDOOR, 8 KN, SOLIDCORE BUS POST INSULATOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 3" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	20		
44	33 KV OUTDOOR, 8 KN, SOLIDCORE BUS POST INSULATOR WITH RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 2" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos.	0		

B. EQUIPMENTS/ MATERIALS ALREADY STORED IN WBSEB STORES

S.No.	Description of Item	Unit	Qty	Rate	Amount
45	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND TURN BUCKLE SET SUITABLE FOR QUAD ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	0		
46	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND WITHOUT TURN BUCKLE SET SUITABLE FOR QUAD ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	0		
47	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	0		
48	400 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND WITHOUT TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	0		
49	220 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X15 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 250MM).	Nos.	0		
50	220 KV DOUBLE TENSION STRING INSULATOR WITH DOUBLE ANCHORING POINT(ANCHOR SPACING 450MM) , STRING COMPRISING 2X15 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING , TENSION CLAMP AND WITHOUT TURN BUCKLE SET SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 250MM).	Nos.	0		
51	400 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND DROP TYPE SUSPENSION CLAMP SUITABLE FOR QUAD. ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	0		
52	400 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND THROUGH TYPE SUSPENSION CLAMP SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	0		

B. EQUIPMENTS/ MATERIALS ALREADY STORED IN WBSEB STORES

S.No.	Description of Item	Unit	Qty	Rate	Amount
53	400 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X25 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND DROP TYPE SUSPENSION CLAMP SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 450MM).	Nos.	0		
54	220 KV SINGLE SUSPENSION STRING INSULATOR COMPRISING 1X15 NO. 160KN FOG TYPE DISCS WITH HARDWARE SET WITH ALL HARDWARE ACCESSORIES INCLUDING CORONA RING AND THROUGH TYPE SUSPENSION CLAMP SUITABLE FOR TWIN ACSR MOOSE CONDUCTOR(SUBCONDUCTOR SPACING 250MM).	Nos.	0		
55	DISC INSULATORS (160 KN)	Nos.	6500		
56	4" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Mtr.	2000		
57	3" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Mtr.	920		
58	2" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Lot	0		
59	1.5" I.P.S TUBE INCLUDING CUTTING, BENDING, AL. WELDING WITH SLEEVES, RADIOGRAPHY TESTING & D.P. TESTING OF 100 % WELDED JOINTS, FIXING CORONA END BELLS ETC. TO COMPLETE	Lot	0		
60	ACSR "MOOSE" CONDUCTOR COMPLETE WITH TEE CONNECTORS FOR DROPPERS TO EQUIPMENT CONNECTION, PG CLAMP FOR BUSBAR JUMPERING, TWIN/QUAD. BUNDLE SPACERS, SAG COMPENSATING SPRINGS FOR PATOGRAPH ISOLATORS ETC. TO COMPLETE	km	15		
61	1.1/33 KV EXTRUDED HR PVC/XLPE INSULATION AND FRLS PVC OVERSHEATHED ARMoured POWER & CONTROL CABLES. CABLING INCULEDES LAYING, DRESSING AND GLANDING, TERMINATION OF CABLES- LAYING CAN BE EITHER ON TRAYS, SUPPORTS, UNDERGROUND, OVER GROUND ETC. IN OUTDOOR YARD OR CONTROL ROOM BUILDING. GLANDS WILL BE SUPPLIED BY BHEL AND ALL OTHER ERECTION MATERIALS VIZ. FERRULES, LUGS, CABLE TIES/STRAPS, MARKERS ETC. INCLUDED IN THE QUOTED RATE.				
61.1	2CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.2	5CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.3	7CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.4	10CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.5	14CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.6	19CX2.5 SQ.MM COPPER, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.7	1CX630 SQ.MM ALUMINIUM, 1.1 KV, XLPE, FRLS CABLE	KM	0		
61.8	3.5CX300 SQ.MM ALUMINIUM, 1.1 KV, XLPE, FRLS CABLE	KM	0		
61.9	1CX150 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.10	3.5CX70 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.11	3.5CX35 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.12	4CX16 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.13	4CX6 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	0		
61.14	2CX6 SQ.MM ALUMINIUM, 1.1 KV, PVC, FRLS CABLE	KM	0		

B. EQUIPMENTS/ MATERIALS ALREADY STORED IN WBSEB STORES

S.No.	Description of Item	Unit	Qty	Rate	Amount
61.15	33 KV CABLE 3 CORE 50 SQ.MM XLPE FOR UNEARTH SYSTEM	Mtr.	0		
61.16	1 CORE PVC ARMoured 1.1 KV FOR UNEARTHED SYSTEM	Mtr.	0		
61.17	33 KV CABLE TERMINATION KIT (OUTDOOR)	Nos.	0		
61.18	STRAIGHT THROUGH JOINT KIT FOR 33 KV CABLE	Lot	1		
62	SUB-STATION LIGHTING SYSTEM	Lot	0		
63	FIRE-FIGHTING, FIRE HYDRANT & PROTECTION SYSTEM	Lot	0		
64	EARTHING MAT COMPLETE (BALANCE WORK)				
64.1	32 MM DIA MS ROD	KM	3		
64.2	75X8 GS FLAT FOR EQUIPMENT EARTHING AND FOR RISERS	KM	0		
64.3	50X6 GS FLAT FOR BOX AND TRENCH EARTHING	KM	0		
64.4	40 DIA PIPE ELECTRODE	Nos.	0		
65	500 MM WIDE, 2500 MM LONG GALVANISED PERFORATED TRAY	Nos.	0		
66	300 MM WIDE, 2500 MM LONG GALVANISED PERFORATED TRAY	Nos.	0		
67	MARSHALLING KIOSK	Nos.	0		
68	JUNCTION BOX CT & CVT	Nos.	0		
69	PHASE COLOUR DISCS, DANGER PLATE ETC.	Lot	0		
70	PLCC EQUIPMENTS				
70.1	LINE TRAP				
70.2	400 KV, 2000 A, 40 KA, 3 PHASE, LINE TRAP COMPLETE WITH INSULATORS, RIGID/EXPENSION TYPE TERMINAL CONNECTORS SUITABLE FOR 4" AL. TUBE/ACSR MOOSE CONDUCTOR TO COMPLETE	Nos	2		
70.3	COUPLING DEVICE (FOR PHASE TO PHASE COUPLING)	Nos.	1		
70.4	SINGLE CHANNEL PLC TERMINAL WITH PROTECTION COUPLER	Nos.	2		
70.5	SINGLE CHANNEL PLC TERMINAL WITHOUT PROTECTION COUPLER	Nos.	2		
70.6	HF CABLE (METRE)	Mtr.	1100		
70.7	EPAX	Nos.	0		
70.8	TELEPHONE RECEIVER	Nos.	2		
70.9	TELEPHONE CABLE	Lot	0		
70.10	48 V BATTERY 300 AH	Nos.	1		
70.11	50 V BATTERY CHARGER 60 A	Nos.	1		
71	STRUCTURE				
71.1	LATTICE TYPE STRUCTURE	MT	0		
71.2	PIPE STRUCTURE	MT	0		
71.3	HARDWARES	MT	0		
71.4	FOUNDATION BOLTS	MT	0		
	TOTAL AMOUNT (Rs.)				

NOTES :

1	The material covered under this Annexure i.e. Annexure-II (Material/Equipment already stored in WBSEB store) is to be loaded from WBSEB stores and transported to BHEL site store. Repacking of materials/equipments, if required shall also be done before transportation to BHEL site stores.
2	Contractors are required to quote only for loading, repacking (if required) and transportation from WBSEB stores upto BHEL site store for material/equipment covered under Annexure-II (Material/Equipment already stored in WBSEB stores)
3	Unloading at site ,handling, shifting to and from BHEL site store, proper storage, assembly, installation, pre-commissioning test and commissioning tests of material covered in Annexure-II are covered in the Annexure-I (Main scope).
4	The approx. distance of WBSEB stores from BHEL site stores is 1.5 KM.