

TS NO BHE/PW/PUR/TRT-ELE/516					
BHARAT HEAVY ELECTRICALS LIMITED					
POWER SECTOR, WESTERN REGION					
RATE SCHEDULE FOR TROMBAY UNIT #8 ELECTRICAL SYSTEMS					
HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, COMPLETE ERECTION, CHECKING OF CALIBRATION, TESTING, COMMISSIONING AND HANDING OVER OF ELECTRICAL PACKAGES VIZ., POWER TRANSFORMERS, ISOLATED PHASE BUS DUCT FOR GENERATOR TRANSFORMER, SEGREGATED PHASE BUS DUCT FOR STATION TRANSFORMER / UNIT AUX. TRANSFORMER, ELECTROSTATIC PRECIPITATOR, GENERATOR CONTROL & PROTECTION PANELS, STATION TRANSFORMER CONTROL & RELAY PANELS, 6.6kV / 0.415 kV SWITCHGEAR BOARDS MCC, LV 0.415 KV BUSDUCTS, SOOT BLOWER SYSTEM, DIGITAL STATIC EXCITATION SYSTEM, VARIABLE FREQUENCY DRIVE, 220 VOLT BATTERY SYSTEM, ELECTRICAL HOIST AND ASSOCIATED ITEMS, TRAYS & CABLING FOR 1X250 MW UNIT #8 .					

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
A	A. POWER TRANSFORMERS				
	A.1 Transportation up to foundation, Assembly, Testing & Commissioning of Three phase 315 MVA 16.5/230 KV, Ynd11 , Generator Transformer including all accessories, piping, cabling etc. as described in Tender Specification.	1	No.		
	A.2 Transportation from stores/ storage yard to erection site, assembly, testing & commissioning of 40 MVA, 3 phase 220KV /6.9KV/6.9 KV Unit Auxiliary Transformer, 3 PH, YNd1d1, ONAF/ONAN, Oil Type , including all accessories, piping, cabling etc as described in tender specification, including Neutral Grounding Transformer & Neutral Grounding Resistor.	1	No.		
	A.3 Transportation from stores/ storage yard to erection site, assembly, testing & commissioning of 20 MVA, 3 phase 16.5/6.9 KV Unit Auxiliary Transformer, 3 PH, Dd0, ONAF/ONAN, Oil Type , including all accessories, piping, cabling etc as described in tender specification, including neutral grounding transformers and Neutral Grounding Resistance .	2	No.		
	A.4 Transportation from stores/ storage yard to erection site , assembly, testing & commissioning of Station Service T/F, 2500 KVA , 3 phase 6.6 kV/ 0.433 KV ,3 PH, OUTDOOR ONAN, Dyn11, Oil Type Transformer including all accessories, cabling etc, including neutral grounding Resistance 1 no for Each Transformer.	2	No.		
	A.5 Transportation from stores/ storage yard to erection site , assembly, testing & commissioning of Unit Service T/F, 2000 KVA , 3 phase 6.6 kV/ 0.433 KV ,3 PH, OUTDOOR ONAN, Dyn11, Oil Type Transformer including all accessories, cabling etc, including neutral grounding Resistance 1 no for each Transformer .	2	No.		
	A.6 Transportation from stores/ storage yard to erection site , assembly, testing & commissioning of ESP Service T/F, 1600 KVA , 3 phase 6.6 kV/ 0.433 KV, 3 PH, OUTDOOR, ONAN, Dyn11, Oil type Transformer, including all accessories, piping, cabling etc including neutral grounding Resistance 1 no for Each Transformer.	2	No.		
	A.7 Transportation from stores/ storage yard to erection site , assembly, testing & commissioning of CHP Service T/F, 1000 KVA , 3 phase 6.6 kV/ 0.433 KV, 3 PH, OUTDOOR, ONAN, Dyn11, Oil type Transformer, including all accessories, piping, cabling etc including neutral grounding Resistance 1 no for Each Transformer.	2	No.		

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
	A.8 Transportation from stores/ storage yard to erection site , assembly, testing & commissioning of AHP Service T/F, 1000 KVA , 3 phase 6.6 kV/ 0.433 KV, 3 PH, OUTDOOR, ONAN,Dyn11,Oil type Transformer , including all accessories, piping, cabling etc including neutral grounding Resistanace for Each Transformer.	2	No.		
B	B. ISOLATED PHASE BUS DUCT FOR GENERATOR TRANSFORMER				
	B.1 Transportation from stores / storage yard to erection site, assembly, erection, welding, testing & commissioning of Isolated Phase Bus Duct (16.5 kV) for interconnection of Generator, Generator Transformer along with all accessories & auxiliaries as described in the Tender Specification.	1	Set		
D	D. 6.6 kV INDOOR SWITCHGEAR. EACH BOARD CONSISTING OF VACUUM BREAKER TYPE VM 12, PT PANELS, AUXILIARY TRANSFORMER PANEL, BUS				
	D.1 Unit Switchgear Board 8CA : consists of 24 panels, in 12 shipping sections. Overall dimension 19680 x 2651 x 2692. Each shipping section 3.0 MT approx	1	Set		
	D.2 Unit Switchgear Board 8CB : consists of 24 panels, in 12 shipping sections. Overall dimension 19680 x 2651 x 2692. Each shipping section 3.0 MT approx	1	Set		
	D.3 Station Switchgear Board OCA : consists of 09 panels, in 05 shipping sections. Overall dimension 7380 x 2651 x 2692. Each shipping section 3.0 MT approx	1	Set		
	D.4 Station Switchgear Board OCB : consists of 09 panels, in 5 shipping sections. Overall dimension 10660 x 2651 x 2692. Each shipping section 3.0 MT approx	1	Set		
E	TRANSPORTATION FROM STORES/ STORAGE YARD TO ERECTION SITE, ASSEMBLY, ERECTION, TESTING & COMMISSIONING OF 415 V LT SWITCH GEAR BOARDS / MC, DOUBLE FRONT / SINGLE FRONT, COMPRISES OF AIR CIRCUIT BREAKERS, PT PANELS, AUX. TRANSFORMER PANEL, TRUNKING CUBICLE etc.				
	E.1 415 Volt LT TURBINE MCC, Double Front, 8KA , Overall dimensions 9900 x 1200 x 2400 mm, Total weight 9.9 MT / MCC, Panel shall be supplied in loose shipping section.	1	Nos		
	E.2 415 Volt LT TURBINE VALVE MCC, Single / Double Front, 8KB Overall dimension 11900 X 0800 X 2300 mm, Total weight 9.0 MT(Approx), Panel shall be supplied in loose shipping sections.	1	Nos.		
	E.3 415 Volt UNIT SERVICE ACDB ,8QASingle / Double Front, Over all dimensions 6000 X 0800 X 2300 mm, Total weight 6.5 MT (Approx), Panels shall be supplied in loose shipping section.	1	Nos.		
	E.4 Unit SERVICE SWBD 8DA, Over all dimension 9900X 1200X2300 mm, Total weight 12 MT(Approx), Boards shall be supplied in loose shipping sections. One board in each unit. Two number NSP bus duct pieces per board (length one meters approximately) shall be supplied loose for interconnection to Unit Service Transformer	1	Nos.		

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
	E.5 415 Volt STATION SERVICE SWBD,0DA, Single / Double- front,Overall dimension 15470X 1360 X 2300 mm, Total weight 12.5 MT(Approx) , shall be supplied in loose shipping section.	1	Nos.		
	E.6 UNIT EMERGENCY BOARD,8DG Overall Dimensions 12500 X 1200 X2400MM,Total weight 12.0 MT(Approx), shall be supplied in loose shipping section	1	Nos.		
	E.7 220 Volt DC DISTRIBUTION BOARD # 8FA , Overall dimension 11570x 1200 x2300 mm,Total Weight 11.0MT(Approx), shall be supplied in loose shipping sections. .	1	Nos.		
	E.8 415 Volt LT Boiler MCC, Double front, # 8HA Over all dimension 9900X1200X2300 MM , Total WT 12.5 MT (Approx), shall be supplied in loose shipping section..	1	Nos.		
	E.9 415 Volt LT Boiler Valve and Damper MCC, Double Front, # 8HB. Over all dimension 11320X0800X2300 mm, Total WT 5.0 MT(Approx), Panel shall be supplied in shipping section. .	1	Nos.		
	E.11 415 Volt LT Boiler ACDB 8HC, Double Front, Over all dimension 1700X0800X2300 mm, Total WT 3.5 MT(Approx), Panel shall be supplied in shipping section. .	1	Nos.		
	E.12 415 Volt Ventilation MCC Double front MCC # 0TB , Overall dimension 8200 x 1200x 2300 mm , Total Weight 8.5 MT (Approx) shall be supplied in loose shipping section.	1	No.		
	E.13 415 Volt Main Plant Air Conditioning Double front MCC # OTA , Overall dimension 9900 x 1200 x 2400 mm , Total Weight 9.5 MT (Approx), shall be supplied in loose shipping section,	1	No.		
	E.15 415 Volt ESP Air Conditioning & Ventilation MCC Double front MCC # 8TB , Overall dimension 6000 x 800x2300 mm , Total Weight 8.5 MT (Approx) shall be supplied in loose shipping section.	1	No.		
	E.16 415 Volt Ash SILO MCC 0SA Double front , Overall dimension 2600 x 800x 2300 mm , Total Weight 4.5 MT (Approx) shall be supplied in loose shipping section.	1	No.		
	E.17 415 Volt Ash Water - cum- Compressor SWBD ODC,Double front , Overall dimension 8200 x 1200 x 2300 mm , Total Weight 9.5 MT (Approx) shall be supplied in loose shipping section.	1	No.		
	E.18 415 Volt MISC SERVICE MCC, 0QASingle/ Double front , Overall dimension 12500 x 1200x 2300 mm , Total Weight 10.5 MT (Approx) shall be supplied in loose shipping section.	1	No.		
	E.19 415 Volt SERVICEWATER MCC, 0SB,Single/ Double front , Overall dimension 7700 x 1200x 2300 mm , Total Weight 8.5 MT (Approx) shall be supplied in loose shipping section.	1	No.		

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
F	NON SEGREGATED LV 415 VOLT BUSDUCTS / NEUTRAL GROUNDING TRANSFORMER / NEUTRAL GROUNDING RESISTANCE Transportation of material from Stores/ storage yard to erection site, Erection, Assembly, Testing & Commissioning of NSP BUS DUCTS for interconnection between service transformer and LT MCC.				
	F.1	415 Volt LT Interconnecting BUS DUCT between LT Power Oil Filled Transformer of (2000 KVA / 1600 KVA /1000 KVA, 11 & 6.6 KV) rating . Total length of all 10 bus duct is 165 mtrs (approx) Typical cross section 500 x 1000, Weight 150 kg/mtr (approx) loose items like silicagel breather pipe, GI channel supports and associated accessories.	Set	10	
G	F. DIGITAL STATIC EXCITATION SYSTEM TRANSPORTATION FROM STORES / STORAGE YARD TO ERECTION SITE, ASSEMBLY, ERECTION, TESTING, & COMMISSIONING OF STATIC EXCITATION SYSTEM				
	G.1	Transportation from store / storage yard to erection site, Erection, Assembly, Testing & Commissioning of Digital Excitation Equipments / System, System consist of Regulation / Thyristor / field suppression panels & accessories as per tender specification.	1	Set	
H	VARIABLE FREQUENCY DRIVE				
	H.1	Transportation from stores / storage yards to erection site, erection, assembly, testing & commissioning of VARIABLE FREQUENCY DRIVE of ID FANS consist of Load Converter Inverter Panels, Control Panels, Reactors, Transformers, Vacuum Breakers and associated accessories, as per tender specification.			
I	GENERATOR, GT, ST & UAT PROTECTION & METERING PANELS:- TRANSPORTATION FROM STORES / STORAGE YARD TO ERECTION SITE, ASSEMBLY,				
	I.1	Transportation from stores / storage yard to erection site, erection, integrated electrical testing & commissioning (which comprises of relay testing, functional checks of control / protection/ Metering circuit)of Generator, Generator Transformer, Unit Auxiliary Transformers, "Control / Protection & Metering Panels", Over all dimension of each panels 1000x1000x2295 mm, approx weight 600 Kg each Panel. .	4	Nos	
	I.2	Transportation from stores / storage yard to erection site, erection, integrated electrical testing & commissioning (which comprises of relay testing, functional checks of control / protection/ Metering circuit)of STATION TRANSFORMER , "Control / Protection & Metering Panels", Over all dimension of each panels 1000x1000x2295 mm, approx weight 500 Kg each Panel.One Panel per Unit.	2	Nos.	
	I.3	AC Control supply panel (ACCSP) consisting of transformers, changeover system, modules, etc. approx weight 3 MT	1	No	

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
	I.4 DC Control supply panel (DCCSP) consisting of changeover system, modules, etc. approx weight 0.5 MT	1	No		
	I.5 DC motor starter panels, etc (DC JOP, DC EOP, Seal oil panel), including resistance boxes. Approx weight 0.5 MT each.	3	Nos		
J	SOOT BLOWER SYSTEM ::TRANSPORTATION FROM STORES / STORAGE YARD TO ERECTION SITE, ASSEMBLY, ERECTION, TESTING, & COMMISSIONING				
	J.1 Soot Blower Motor Control Center, double front, overall dimension 9700(W)x2450(H)x1000(D), WT 12T, shall be supplied in eight to ten loose shipping sections	1	Set		
	J.2 Testing and commissioning of soot blower control panel, including mounting of mimic	1	Set		
	J.3 Testing & Commissioning of Wall, Long Retractable, Air Heater Soot Blower	76	No		
	J.4 Testing & Commissioning of Furnace temperature probe (including solenoids, thermocouple, etc)	1	No		
K	ELECTROSTATIC PRECIPITATOR SYSTEM, Transportation of material from Stores/ storage yard to erection site, Erection, Assembly, Testing &				
	K.1 ESP PCC (LT Main Switch Boards),Double Front , Double drawout Type, Overall dimensions 7800L X (1700/ 600) W X 2450H mm, Weight of each	1	Nos		
	K.2 Auxiliary Control Panel, Overall Dimension 4800 Lx 1000 x 600W X 2450 H mm, Weight of each panel 5.0 MT and supplied in loose shipping sections. TWO boards per unit.	2	Nos		
	K.3 Electronic Control Panel, Overall dimensions 700X650X2080mm, Weight of each panel 0.3MT. BAPCON & OTHER Electronic modules / rotary switches, etc along with cables and connectors, shall be supplied loose for mounting in the panel at site	20	Nos		
	K.4 RAPPER CONTROL PANEL Overall dimension 1000X650X2050 mm, Weight of each panel 0.3 MT. 4 Nos. RAPCON Electronic modules for each panel (along with cables connectors) size 250 x200x200 mm shall be supplied loose for mounting in the panel at site	2	Nos		
	K.5 IOS PC, Computer Furniture, Data Logger PC, Printer -2 Nos. PC termination box, peripheral cables etc. APPROX WEIGHT 100 KG.	1	Set		
	K.6 Junction Boxes (Power) 600x278 x515 mm approx.	20	Nos		
	K.7 Junction Boxes (Control) 450 x150 x300 mm approx	12	Nos		
	K.8 Junction Boxes (Control) 250 x150 x400 mm approx	28	Nos		
	K.9 Ash Level Indicator comprising of level probe with extension lagging pipe, Electronic Unit, Interconnecting Cabling, Conduit, etc.	80	Set.		
	K.10 Thermostats including Calibration.	24	Nos.		
L	ELECTRICAL HOIST DSL CABLE TRAILING SYSTEM Transportation of material from Stores/ storage yard to erection site, Erection, Assembly, Testing &				
	L.1 The hoist work comprises, erection, Testing Commissioning of Switch Fuse Unit, Cable Guide Trolley, Dog chain or Angle / I beam support arrangement. Real Insulators. Limit Switches . Trailing	28	Nos		

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
M	DC BATTERY SYSTEM (220 V DC AND 24 VOLT DC SYSTEM Transportation of material from Stores/ storage yard to erection site, Erection, Assembly, Testing & Commissioning of 220 VOLT BATTERY / BATTERY CHARGER, 24 VOLT BATTERY / BATTERY CHARGER FOR SG , TG&STATION C&I.FOPH,CWPH ETC.				
	M.1	220 Volt, 2100AH, DC Battery System, Each set comprises of Battery system. (108 nos, 2.1 volts.) , Battery Float Cum Boost charger(400A), Battery Shall be mounted on teak wood still age & loose accessories such as inter cell / stack connectors etc shall be supplied loose. (UNIT BATTERY SYSTEM). As per dtails given in tender elsewhere.	2	Sets	
	M.3	SG /TG & STATION C&I Parallel Redundant 24V DC supply and battery system consists of battery charger, distribution panel, battery 20 Nos, battery racks (to be assembled), supplied in 4 nos (or two nos suite of 2) panels, . App dimension 850x750x2100 for each section.	2	Set	
N	MISC. ITEMS : Transportation of material from Stores/ storage yard to erection site, Erection, Assembly, Testing & Commissioning				
	N.1	Junction Boxes (12WAY, 24WAY, 48WAY, 64WAY ETC.)	25	No.	
	N.2	Wall ounted 220 Volt DC Fuse Board of assorted size	2	No.	
	N.3	24 Volt DC Fuse Board of assorted size	2	No.	
	N.4	Wall Mounted AC Fuse Distribution Boards of assorted size	6	No.	
	N.5	LOCAL PUSH BUTTON STATIONS (START / STOP PB BOX)	300	No.	
	N.6	LOCAL MOTOR STARTERS (0.37 KW TO 3.7 KW) Wall Mounted	22	No.	
	N.6	Structural Steel fabrication & installation (MS angle, Channel, Plate etc)	25	MT	
P	ONLY TESTING & COMMISSIONING				
	P.1	Hopper Heater, Support Insulator Heater, Shaft Insulator Heaters for ESP	580	Nos.	
	P.2	High Voltage Rectifier Transformers (95 KV peak, 1000 mA) including oil filtration.	20	Nos.	
	P.3	Electrically (LT) Operated Valves, Dampers and Gates with Actuators, Limit Switches etc. (Regulating & ON/OFF Type).	325	Nos.	
	P.4	Oil Centrifuge (includes erection of only Control panel / board and loop cabling)	2	No	
	P.5	DC Scanner Fan Starter Panel / Motor	1	No	
	P.6	Testing and commissioning of 6.6 KV HT motors including dryout	30	Nos	
	CABLING, EARTHING,LIGHTENING PROTECTION SYSTEM, : Transportation of material from Stores/ storage yard to erection site,				
	HT POWER CABLES (ALUMINIUM, XLPE, Unarmoured)				
A1	6.6 KV XLPE POWER CABLES (AL CONDUCTOR, ARMoured)				
	A1.1	1C X 630 SQ MM	5000	M	
	A1.2	3C X 185 SQ MM	7000	M	
A2	6.6 KV XLPE POWER CABLES (AL CONDUCTOR, UNARMoured)				
	A2.1	1C X 630 SQ MM	1500	M	
	A2.2	1C X 1000 SQ MM	5500	M	
	A2.3	3C X 185 SQ MM	7000	M	

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
B1	LT XLPE POWER CABLES (AL CONDUCTOR, UNARMoured)				
	B.1 1C X 630 SQ MM	9500	M		
	B.2 1C X 400 SQ MM	8500	M		
	B.3 1C X 185 SQ MM	500	M		
	B.4 1C X 95 SQ MM	500	M		
	B.5 1C X 50 SQ MM	3000	M		
	B.6 1C X 25 SQ MM	5000	M		
	B.7 1C X 10 SQ MM	3000	M		
	B.8 2C X50 SQ MM	1000	M		
	B.9 2C X 25 SQ MM	2500	M		
	B.10 2C X 10 SQ MM	1000	M		
	B.11 3C X 300 SQ MM	2000	M		
	B.12 3C X 185 SQ MM	3000	M		
	B.13 3C X150 SQ MM	3000	M		
	B.14 3C X 95 SQ MM	3000	M		
	B.15 3C X 50 SQ MM	2000	M		
	B.16 3C X 25 SQ MM	5000	M		
	B.17 3C X 10 SQ MM	16000	M		
	B.18 3.5C X25 SQ MM	5000	M		
	B.19 3.5C X 50 SQ MM	5000	M		
B2	LT XLPE POWER CABLES (AL CONDUCTOR ,ARMoured)				
	B2.1 3C X185 SQ MM	700	M		
	B2.2 2C X70 SQ MM	10000	M		
	B2.3 3C X25 SQ MM	500	M		
	B2.4 3C X16 SQ MM	500	M		
	B2.5 3CX 6 SQ MM	3800			
	B2.6 3.5C X 25 SQ MM	4000	M		
	B2.7 3.5C X 50 SQ MM	1000	M		
B3	LT XLPE POWER CABLES (COPPER CONDUCTOR, ARMoured)				
	B3.1 1C X 630 SQ MM	2000	M		
	B3.2 1C X95 SQ MM	10000	M		
	B3.3 1C X 70 SQ MM	1000	M		
	B3.4 1C X 35 SQ MM	1000	M		
	B3.5 1C X 25 SQ MM	4500	M		

SEC	SI No / DESCRIPTION	QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
C3	LT PVC POWER CABLES (COPPER CONDUCTOR, UNARMoured)				
	C3.1 2C X 2.5 SQ MM	31000	M		
	C3.2 4C X2.5SQ MM	3700	M		
	C3.3 5C X 2.5 SQ MM	9000	M		
	C3.4 10C X 2.5 SQ MM	1000	M		
	C3.5 16 C X 2.5 SQ MM	6000	M		
	C3.6 5C X 6 SQ MM	2000	M		
C4	LT PVC CONTROL CABLES (COPPER CONDUCTOR, ARMoured)				
	C4.1 2C X2.5 SQ MM	7800	M		
	C4.2 3C X 2.5 SQ MM	47500	M		
	C4.3 10C X 2.5 SQ MM	6400	M		
	C4.4 4C X 1.5 SQ MM CU SCREENED ARMoured	4000	M		
	C4.5 19C X 1.5 SQ MM CU ARMoured	2600	M		
F1	CABLE TRAYS				
	F1.1 LADDER TYPE GALVANISED, CABLE TRAY COMPLETE WITH				
	i) 600 MM WIDE	18500	Mtrs.		
	ii) 450 MM WIDE	8250	Mtrs.		
	iii) 300 MM WIDE	7250	Mtrs.		
	iv) 150 MM WIDE	4000	Mtrs.		
	F1.2 PERFORATED TYPE GALVANISED, CABLE TRAY COMPLETE WITH COUPLER PLATES,& FIXING HARDWARES				
	i) 600 MM WIDE	2000	M		
	ii) 450 MM WIDE	500	M		
	iii) 300 MM WIDE	500	M		
	iv) 150 MM WIDE	500	M		
F2	CABLE TRAYS ACCESSORIES				
	F2.2 CABLE TRAY ACCESSORIES				
	F2.2.1 90 DEG HORIZONTAL BEND LADDER TYPE 600MM RADIUS				
	i) 600 MM WIDE	100	Nos		
	ii) 450 MM WIDE	30	Nos		
	iii) 300 MM WIDE	50	Nos		
	iv) 150 MM WIDE	10	Nos		
	F2.2.2 90 DEG HORIZONTAL BEND PERFORATED TYPE 600MM RADIUS				
	i) 600 MM WIDE	20	Nos		
	ii) 450 MM WIDE	10	Nos		
	iii) 300 MM WIDE	10	Nos		
	iv) 150 MM WIDE	5	Nos		
	F2.2.3 90 DEG VERTICAL BEND LADDER TYPE 600MM RADIUS (INSIDE)				
	i) 600 MM WIDE	40	Nos		
	ii) 450 MM WIDE	20	Nos		
	iii) 300 MM WIDE	120	Nos		
	iv) 150 MM WIDE	35	Nos		
	F2.2.3 90 DEG VERTICAL BEND LADDER TYPE 600MM RADIUS (OUTSIDE)				
	i) 600 MM WIDE	40	Nos		
	ii) 450 MM WIDE	20	Nos		
	iii) 300 MM WIDE	120	Nos		
	iv) 150 MM WIDE	35	Nos		

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	F2.2.4 90 DEG VERTICAL BEND PERFORATED TYPE 600MM RADIUS (INSIDE)				
	i) 600 MM WIDE	10	Nos		
	ii) 450 MM WIDE	10	Nos		
	iii) 300 MM WIDE	20	Nos		
	iv) 150 MM WIDE	10	Nos		
	F2.2.4 90 DEG VERTICAL BEND PERFORATED TYPE 600MM RADIUS (OUTSIDE)				
	i) 600 MM WIDE	10	Nos		
	ii) 450 MM WIDE	10	Nos		
	iii) 300 MM WIDE	20	Nos		
	iv) 150 MM WIDE	10	Nos		
	F2.2.5 TEES LADDER TYPE 600MM RADIUS				
	i) 600 MM WIDE	5	Nos		
	ii) 450 MM WIDE	5	Nos		
	iii) 300 MM WIDE	5	Nos		
	iv) 150 MM WISE	5	Nos		
	F2.2.6 TEES PERFORATED TYPE 600MM RADIUS				
	i) 600 MM WIDE	5	Nos		
	ii) 450 MM WIDE	5	Nos		
	iii) 300 MM WIDE	5	Nos		
	iv) 150 MM WIDE	5	Nos		
	F2.2.7 CROSSES LADDER TYPE 600 MM RADIUS				
	i) 600 MM WIDE	5	Nos		
	ii) 450 MM WIDE	5	Nos		
	iii) 300 MM WIDE	5	Nos		
	iv) 150 MM WISE	5	Nos		
	F2.2.8 CROSSES PERFORATED TYPE				
	i) 600 MM WIDE	5	Nos		
	ii) 450 MM WIDE	5	Nos		
	iii) 300 MM WIDE	5	Nos		
	iv) 150 MM WIDE	5	Nos		
	F2.2.9 REDUCERS LADDER TYPE (50 % LHS / 50 % RHS)				
	i) 600MM - 450MM	20	Nos		
	ii) 600MM - 300MM	20	Nos		
	iii) 450MM - 300MM	20	Nos		
	iv) 300-150 MM WIDE	20	Nos		
	F2.2.10 REDUCERS PERDORATED TYPE (50 % LHS / 50% RHS)				
	i) 600MM - 450MM	6	Nos		
	ii) 600MM - 300MM	6	Nos		
	iii) 450MM - 300MM	6	Nos		
	iv) 300-150 MM WIDE	6	Nos		
	F2.2.13 CABLE TRAY COVERS				
	i) 600 MM WIDE	500	M		
	ii) 450 MM WIDE	150	M		
	iii) 300 MM WIDE	200	M		
	iv) 150 MM WIDE	100	M		

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F3	CABLE TRAYS SUPPORT SYSTEM				
	F3.1 CABLE TRAY SUPPORT (HOT DIP GALVANISED STRUCTURE STTEL)				
	F3.1.1 ISMC - 150 (4.7 MTR LENGTH/ PIECE)	3800	M		
	F3.1.2 ISMC - 150 (4.0 MTR LENGTH/ PIECE)	1200	M		
	F3.1.3 ISMC - 100 (4.0 MTR LENGTH/ PIECE)	1800	M		
	F3.1.4 ISA - 50X 50 X 6 (0.775 MTR LENGTH/ PIECE)	7750	M		
	F3.1.5 ISA - 50X 50 X 6 (6.0 MTR LENGTH/ PIECE)	5100	M		
F4	CABLE TERMINATION KITS AND STRAIGHT THROUGH JOINTS				
	F4.1 6.6KV TERMINATION KITS FOR 6.35/11 KV, XLPE INSULATED ALUMINIUM CABLE				
	i) 1C X 1000 SQ MM UNARMoured	111	Nos		
	ii) 1CX630 SQ.MM. UNARMoured	27	Nos		
	iii) 3CX185 SQ.MM. UNARMoured	55	Nos		
	F4.2 STRAIGHT THROUGH JOINTS FOR 6.35/11 KV, XLPE INSULATED ALUMINIUM CABLE				
	i) 1CX630 SQ.MM. UNARMoured	14	Nos		
	ii) 3CX185 SQ.MM. UNARMoured	3	Nos		
	iii) 1CX630 SQ.MM. ARMoured	4	Nos		
	iv) 3CX185 SQ.MM. ARMoured	7	Nos		
F5	CABLE TREFOIL CLAMPS				
	F5.1 TREFOIL CLAMPS				
	i) 6.6KV GRADE,1C - 1000 SQ MM AL, XLPE CABLE UNARMoured	1840	Nos		
	ii) 6.6KV GRADE,1C - 630 SQ MM AL, XLPE CABLE UNARMoured	500	Nos		
	iii) 1.1KV GRADE,1C - 400 SQ MM AL, XLPE CABLE UNARMoured	6000	Nos		
G1	FIRE SEALING SYSTEM				
	G1.1 FIRE SEALING SYSTEM				
	G1.1 FIRE STOP MATERIAL FOR OPENINGS				
	i BELOW PANELS (800 mm x 450 mm)	470	Nos		
	ii AT WALLS (1000 mm x 1000 mm)	40	Nos		
	iii) AT FLOORS (1000 mm x 1000mm)	50	Nos		
H1	CONDUITS (GALVANISED MS RIGID / FLEXIBLE GI / PVC)				
	H1.1 CONDUITS				
	H1.1.1 GALVANISED MS RIGID CONDUITS				
	i) 50 MM DIA	500	M		
	ii) 75 MM DIA	500	M		
	iii) 200 MM DIA	250	M		
	H1.1.2 FLEXIBLE GI CONDUITS				
	i) 25 MM DIA	250	M		
	ii) 150 MM DIA	200	M		
J1	MARSHALLING BOXES				
	J1.1 MARSHALLING BOX				
	i) 6 WAY	4	Nos		
	ii) 12 WAY	4	Nos		
	iii) 24 WAY	4	Nos		
	iv) 36 WAY	4	Nos		
	v) 48 WAY	4	Nos		

SEC	SI No / DESCRIPTION		QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
K1	ABOVE GROUND EARTHING					
	K1.1	ABOVE GROUND EARTHING & LIGHTNING PROT N SYSTEM				
	K1.1	EQUIPMENT EARTHING SYSTEM				
	i)	GS FLAT 65 X 8 mm	500	M		
	ii)	GS FLAT 50 X 6 mm	15500	M		
	iii)	GS FLAT 25 X 6 mm	500	M		
	iv)	GS FLAT 25 X 3 mm	250	M		
	v)	GS FLAT 25 X 3 mm	750	M		
	vi)	3.15 MM GI WIRE	3500	M		
	vii)	GS WIRE 8 SWG	500	M		
	K1.2	FLEXIBLE BRAIDED CONDUCTOR WITH TINNED COPPER CLAMP CONNECTED BY U BOLT FOR FENCE GATE EARTHING.	25	M		
	K1.3	8 SWG GI STRANDED WIRE	1500	M		
L1	LIGHTNING PROTECTION SYSTEM					
	L1	LIGHTNING PROTECTION SYSTEM				
	i)	20 DIA, 1 M LONG GS ROD FOR VERTICAL AIR TERMINATION	10	Nos		
	ii)	TEST LINK WITH 150X150X6 THICK GS PLATE WITH BOX.	150	Nos		
M1	MISCLANNEOUS ITEMS					
	M1.1	6 MM THICK CHEQUERED PLATE FOR COVERING OF LEFT OVER PORTION OF CABLE TRENCHES INSIDE THE BUILDING	5	MT		
	M1.2	GALVANISED MS SHEET (14 SWG) PERFORATED TYPE FOR COVERING CABLE SHAFT	250	SQ MTR		
	TOTAL AMOUNT IN FIGURES:				Rs.	
	TOTAL AMOUNT IN WORDS:					
	Place:					
	Date :					
SEC	SI No / DESCRIPTION		QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)