

TENDER DOCUMENT

TENDER SPECN No : BAP : ERN : NSPCL : ESP : ELEC :C : 235

NAME OF WORK :

ELECTRICAL WORKS OF ESP INVOLVING HANDLING AT SITE STORES / STORAGE YARD, TRANSPORTATION TO SITE OF WORK, DISMANTLING OF EXISTING COMPONENTS, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL COMPONENTS OF ESP **IN UNIT-1 & 2, CPP-II (2X 60 MW), NSPCL, ROURKELA**, ODISHA USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , CONSUMABLES, MANPOWER ETC.

PART - II (PRICE BID)



ERECTION SERVICES DEPARTMENT

BHARAT HEAVY ELECTRICAL LTD

BOILER AUXILIARIES PLANT

RANIPET - 632 406

SCHEDULE OF RATES & QUANTITIES

TENDER SPECN No : BAP : ERN : RSP : ESP : MH :C : 236

NAME OF WORK :

ELECTRICAL WORKS OF ESP INVOLVING HANDLING AT SITE STORES / STORAGE YARD, TRANSPORTATION TO SITE OF WORK, DISMANTLING OF EXISTING COMPONENTS, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL COMPONENTS OF ESP IN UNIT-1 & 2, CPP-II (2X 60 MW), NSPCL, ROURKELA, ODISHA USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , CONSUMABLES, MANPOWER ETC.

INSTRUCTIONS TO BIDDERS

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| <p>1. THIS PRICE SCHEDULE CONSISTS OF THREE SECTIONS. SECTION - I IS THE SCHEDULE OF RATES FOR SUPPLY PART OF ILLUMINATION SYSTEM. SECTION - II IS THE SCHEDULE OF RATES FOR ERECTION COMMISSIONING. SECT- III IS THE SCHEDULE FOR THE GRAND TOTAL AMOUNT FOR ENTIRE SCOPE OF WORK.</p> |
| <p>2. BIDDERS TO TO NOTE THAT EVALUATION OF BIDS WILL BE DONE ON THE GRAND TOTAL AMOUNT QUOTED IN SECTION -III (THE SUMMATION OF TOTAL PRICE OF SCHEDULES IN SECTION - I AND SECTION - II).</p> |
| <p>3. SUPPLY OF ILLUMINATION SYSTEM SHALL BE AS PER APPROVED MAKE ONLY.</p> |
| <p>4. ALL THE ITEMS OF WORK INDICATED IN THIS RATE SCHEDULE SHALL BE CARRIED OUT USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , TRAILORS, MACHINARIES, MAN POWER AND CONSUMABLES.</p> |
| <p>5.THE ELECTRICAL INSTALLATION WORK INCLUDES HANDLING OF MATERIALS AT SITE STORES / STORAGE YARDS, TANSPORTATION TO SITE OF ERECTION, HANDLING AT SITE OF ERECTION, ERECTION, TESTING & ASSISTANCE IN COMMISSIONING ETC.</p> |
| <p>6. THE WEIGHTS & SIZES INDICATED ARE ONLY APPROXIMATE AND NO REVISION IN RATE WILL BE CONSIDERED ON ACCOUNT OF ANY VARIATION DURING ERECTION.</p> |
| <p>7. FOR DETAILS OF SCOPE OF WORK REFER THE TENDER SPECIFICATION.</p> |

SIGNATURE WITH SEAL OF BIDDER

SECTION -I

SCHEDULE OF RATES & QUANTITIES FOR SUPPLY OF ILLUMINATION SYSTEM

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NOTE : The make of illumination system shall be PHILIPS / BAJAJ / WIPRO only. Refer specification no.NSPCL:ILL:REV01 (for MLDB / SLDB etc) and Tender specification for details.

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S.No.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.	VAT/CST in %	VAT / CST AMOUNT in Rs.	AMOUNT INCLUDING VAT / CST in Rs.
A	SUPPLY OF MATERIALS LISTED BELOW FOR ILLUMINATION SYSTEM IN ESP AREA / ESP CONTROL ROOM AS PER SPECIFICATION REF. NSPCL:ILL:REV01							
01	MAIN LIGHTING DISTRIBUTION BOARD	2	No.					
02	SUB LIGHTING DISTRIBUTION BOARD	6	No.					
03	LIGHTING FIXTURE OF TYPE TCS 350 WITH 2 X TL-D36 / D40W FLUORESCENT LAMP OR EQUIVALENT.	40	SET					
04	LIGHTING FIXTURE FOR TYPE BGEST 02705V IP65 WITH 70 WATT HPSV LAMP OR EQUIVALENT.	160	SET					
05	PENDANT SUITABLE FOR LIGHTING FIXTURE OF TYPE TCS 350 OR EQUIVALENT, EACH SET OF 2MR THREADED AT THE END WITH WASHERS.	20	SET					
06	BALL AND SOCKET TO HOLD THE ABOVE PENDANT WITH FIXING SCREWS.	20	SET					
07	WOODEN ROUND BLOCKS TO FIX THE ABOVE BALL AND SOCKET WITH SCREWS.	20	SET					

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SECTION - I

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S.No.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.	VAT/CST in %	VAT / CST AMOUNT in Rs.	AMOUNT INCLUDING VAT / CST in Rs.
08	OUTDOOR LIGHTING JUNCTION BOX WITH CABLE GLANDS TO TERMINATE 1 I/C AND 2 O/G CABLE OF SIZE 2C x 2.5 SQMM.	160	No.					
09	INDUSTRIAL TYPE 63 Amp AC 3 PIN METAL CLAD WELDING RECEPTACLE WITH SINGLE POLE MCB.	6	No.					
10	INDUSTRIAL TYPE 20 Amp AC 3 PIN METAL CLAD SOCKET WITH SINGLE POLE ACB.	4	No.					
11	INDUSTRIAL TYPE 5 Amp AC 3 PIN METAL CLAD SOCKET WITH SINGLE POLE MCB.	20	No.					
12	2.7 M LONG 50 MM DIA 2 MM THICK GI PIPE FOR LAMP FITTINGS.	160	No.					
13	800 MM LONG, 32 MM DIA BEND GI TUBE FOR LIGHTING FIXTURES AS PER DRG. NO. 4-00-114-30126.	160	No.					
14	GALVANISED CLAMPS OF 3 MM THICK WITH SCREWS (SUITABLE FOR WELDING) FOR FIXING 50 MM DIA GI TUBE.	480	No.					
15	19 MM DIA 2MM THICK MS RIGID CONDUIT (BLACK PAINTED)	3000	MTR					
16	GALVANISED CLAMPS OF 2 MM THICKNESS (MIN) WITH FIXING SCREWS FOR FIXING 19 MM DIA GI TUBE.	3000	No.					

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SECTION -I

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S.No.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.	VAT/CST in %	VAT / CST AMOUNT in Rs.	AMOUNT INCLUDING VAT / CST in Rs.
17	2 WAY METALLIC JUNCTION SUITABLE FOR 19 MM MS CONDUITS (BLACK PAINTED)	80	No.					
18	3 WAY METALLIC JUNCTION SUITABLE FOR 19 MM MS CONDUITS (BLACK PAINTED)	80	No.					
19	4 WAY METALLIC JUNCTION SUITABLE FOR 19 MM MS CONDUITS (BLACK PAINTED)	80	No.					
20	ELBOW BENDS (90 DEGREE) SUITABLE FOR 19 MM MS CONDUITS (BLACK PAINTED)	160	No.					
21	TEE BENDS SUITABLE FOR 19 MM MS CONDUITS (BLACK PAINTED)	160	No.					
22	CONDUIT UNION (BLACK PAINTED) SUITABLE FOR 19 MM MS CONDUITS.	160	No.					
23	CEILING ROSE FOR LAMPS	40	No.					
24	ELBOW BENDS (90 DEGREE) SUITABLE FOR 50 MM DIA GI PIPE (BLACK PAINTED)	150	No.					

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SECTION - I

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S.No.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.	VAT/CST in %	VAT / CST AMOUNT in Rs.	AMOUNT INCLUDING VAT / CST in Rs.
25	TEE BENDS SUITABLE FOR 50 MM DIA GI PIPE (BLACK PAINTED)	150	No.					
26	CONDUIT UNION (BLACK PAINTED) SUITABLE FOR 50 MM DIA GI PIPE.	150	No.					
27	1 C X 2.5 SQMM , 660 V GRADE, PVC INSULATED, MUTISTRANDED, UNARMoured COPPER FRLS, COPPER WIRE (RED COLOUR).	300	MTR					
28	1 C X 2.5 SQMM , 660 V GRADE, PVC INSULATED, MUTISTRANDED, UNARMoured COPPER FRLS, COPPER WIRE (BLACK COLOUR).	300	MTR					
30	380MM SWEEP EXHAUST FAN WITH ACCESSORIES, FIXTURES etc. FOR ESP CONTROL ROOM.	4	SET					
				TOTAL				

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SECTION - II

SCHEDULE OF RATES & QUANTITIES FOR ERECTION & COMMISSIONING WORK

TENDER SPECN No : BAP : ERN : NSPCL : ESP : ELEC :C : 235

NOTE : REFER TO TENDER SPECIFICATION FOR DETAILED SCOPE OF WORK.

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
A	DISMANTLING OF EXISTING ELECTRICAL COMPONENTS OF ESP NAMELY CABLES, CABLE TRAYS, JUNCTION BOXES, SUPP. & SHAFT INSULATOR HEATERS, ILLUMINATION SYS IN ESP AREA ETC. THE WORK INCLUDES SEGREGATING THE MATERIALS , WEIGHMENT, TRANSPORTING AND HANDING OVER AT SCRAP YARD INSIDE NSPCL PLANT PREMISES. SOME OF THE DISMANTLED COMPONENTS WHICH REQUIRE TO BE REUSED SHALL BE PROPERLY STORED AFTER WEIGHMENT.	32.00	MT		
B	ERECTION & COMMISSIONING OF SERVICE TRANSFORMER 1000KVA , 3 phase, 6.6 KV / 415 V , OUT DOOR, ONAN, Dyn11, OIL TYPE INCLUDING ALL ACCESSORIES, PIPING, NEUTRAL EARTHING RESISTOR ETC. REFER TO THE SPECN FOR DETAILS OF WORK. APPROX WT. 4000 KG	4.00	SET		
C	ERECTION & COMMISSIONING OF 415 V LT PANELS, CONTROL PANELS, SSPBs, JBs ETC.				
C-1	LTMSB (DOUBLE FRONT, DRAWOUT) APPROX. WEIGHING 10000 KGS SIZE APPROX. 9500MM(L) X 1700(W) X 2525 MM (H)	2.00	No.		
C-2	AUXILIARY CONTROL PANEL (ACP) APPROX. WEIGHING 8000 KGS SIZE APPROX. 12787MM(L) X 1700(W) X 2450 MM (H)	2.00	No.		
C-3	BUS DUCT FROM ESP SERVICE TRANSFORMER TO LTMSB. APPROX. LENGTH 9000 MM	4.00	SET		

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SECTION - II

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
C-4	ELECTRONIC CONTROL PANEL (ECP). WEIGHING 300 KGS SIZE APPROX. 700MM(L) X 650 MM (W) X 2000 MM (H)	28.00	No.		
C-5	INTEGRATED OPERATING SYSTEM (IOS) PANEL. WEIGHING 300 KGS SIZE APPROX. 700MM(L) X 650 MM (W) X 2000 MM (H)	2.00	No.		
C-6	INSTALLATION OF INTEGRATED OPERATING SYSTEM (IOS) FOR ESP. A SET CONSISTS OF 02 Nos.. OF PC WITH MONITORS, 01 No.PRINTER, UPS, ETC.	2.00	SET		
C-7	DISCONNECTING SWITCH VAR.05 WEIGHING 180 KGS SIZE APPROX. 1200MM(L) X 1100 MM (W) X 750 MM (H)	28.00	No.		
C-8	HEATING ELEMENTS FOR HOPPER HEATER, SUPPORT INSULATOR HEATER AND SHAFT INSULATOR HEATER.	588.00	No.		
C-9	THERMOSTAT FOR HOPPER AND SUPPORT INSULATOR HEATERS.	32.00	No.		
C-10	LOCAL START STOP PUSH BUTTON STATIONS (SSPB) FOR RAPPING MOTORS ETC. WEIGHING APPROX. 5 KGS SIZE APPROX. 180MM(L) X 100 MM (W) X 250 MM (H)	60.00	No.		
C-11	ASH LEVEL INDICATOR (ALI) AND ITS ACCESSORIES CONSISTING OF PROBE, ELECTRONIC UNIT, INTERCONNECTING CABLES/ WIRES / FLEXIBLE CONDUITS ETC. APPROX. WT. 8 KGS EACH.	56.00	SET		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
C-12	JUNCTION BOXES (JB) - POWER AND CONTROL JBs FOR HEATERS, SSPB STATIONS, ALI, ACTUATORS ETC. MATERIAL OF CONSTRUCTION FRP. APPROX. WT. 15 / 12 KGS EACH.	78.00	No		
C-13	INTERLOCKING SYSTEM FOR ESP WITH ACCESSORIES WEIGHT APPROX. 300 KG PER SET	4.00	SET		
C-14	OPACITY MONITOR (OPM) WITH ACCESSORIES APPROX WT. 25 KG PER SET	4.00	SET		
D	TESTING AND COMMISSIONING OF THE FOLLOWING EQUIPMENTS/ COMPONENTS ERECTED BY OTHER BHEL VENDORS. THESE ITEMS OF WORK WILL BE SUBJECT TO REQUIREMENT OF BHEL . ALTERNATIVELY BHEL MAY EXECUTE WITH THEIR OWN RESOURCES.				
D-2	LT MOTORS IN THE COMPLETE SYSTEM - RAPPING MOTORS, BLOWER ETC.	60.00	Nos.		
D-3	MOTORISED / PNEUMATIC ACTUATORS (OF DAMPERS AND GATES) .	10.00	Nos.		
D-4	ELECTRICAL HOISTS INCLUDING INSTALLATION OF TRAILING CABLING ETC . FOR DETAILS REFER SPECN.	4.00	Nos.		
D-5	HIGH VOLTAGE RECTIFIER TRANSFORMER (HVR) OF ESP INCLUDING OIL FILTRATION TO MEET THE SPECIFIED BREAK DOWN VALUE.	28.00	Nos.		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
E	LAYING OF FOLLOWING HT CABLES (6.6 KV) IN CABLE TRAYS/ TRENCHES FOR ID FAN ETC., DRESSING / CLAMPING AS PER SPECIFICATION. CABLES ONLY SHALL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS AT SITE STORE. SUPPLY OF CABLE CLAMPS / TIES ETC. FOR PROPER DRESSING OF CABLES SHALL BE IN THE SCOPE OF SUPPLY OF THE CONTRACTOR.				
E-1	3C X 120 SQ.MM AL., XLPE INSULATED ARMoured HT POWER CABLE (6.6 KV)	1500.00	MTR		
F	LAYING OF FOLLOWING LT POWER & CONTROL CABLES IN CABLE TRAYS/ TRENCHES / CONDUITS AND DRESSING / CLAMPING AS PER SPECIFICATION. CABLES ONLY SHALL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS AT SITE STORE. SUPPLY OF CABLE CLAMPS / TIES ETC. FOR PROPER DRESSING OF CABLES SHALL BE IN THE SCOPE OF SUPPLY OF THE CONTRACTOR. SUPPLY AND FIXING OF FIRE SEALING ARRANGEMENT IN THE CABLE EXITS OF CONTROL ROOMS IS ALSO IN THE SCOPE OF CONTRACTOR. THERE WOULD BE TWO CONTROL ROOMS PER BOILER / UNIT AND TWO EXITS PER CONTROL ROOM.				
F-1	3 1/2 C X 120 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	500.00	MTR		
F-2	2C X 70 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	11000.00	MTR		
F-3	3C X 35 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	1200.00	MTR		
F-4	3C X 16 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	500.00	MTR		
F-5	3C X 6 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	4000.00	MTR		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
F-6	4C X 2.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	600.00	MTR		
F-7	3C X 2.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	10000.00	MTR		
F-8	2C X 2.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	8000.00	MTR		
F-9	10C X 1.5 SQ.MM CU . PVC INSULATED UNARMoured CABLE	10000.00	MTR		
F-10	3C X 1.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	7000.00	MTR		
F-11	4C X 1.5 SQMM CU. SCREENED, PVC INSULATED, UNARMoured CABLE	8000.00	MTR		
G	TERMINATION OF FOLLOWING HT CABLES (6.6 KV) AS PER STANDARD SPECIFICATIONS. TERMINATION KIT INCLUDING CABLE GLANDS AND LUGS SHALL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS AT SITE STORE.				
G-1	3C X 120 SQ.MM AL., XLPE INSULATED ARMoured HT POWER CABLE (6.6 KV)	8.00	No.		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
H	TERMINATION OF FOLLOWING LT POWER & CONTROL CABLES AS PER STANDARD SPECIFICATIONS. CABLE GLANDS AND LUGS SHALL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS AT SITE STORE. SUPPLY OF FERRULES, CABLE TIES ETC. IS IN THE SCOPE OF THE CONTRACTOR. TERMINATION HERE MEANS THAT OF A CABLE AND NOT A CORE OF THE CABLE. TERMINATION INVOLVES CUTTING OF CABLE TO REQUIRED LENGTH, FIXING OF CABLE GLAND, FIXING FERRULES AND CRIMPING LUGS FOR ALL THE REQUIRED CORES, DRESSING OF THE CABLE AND ALL THE CORES INSIDE THE PANEL ETC., AND CONNECTING ALL / REQUIRED CORES INSIDE THE PANELS / JBs, SSPBs, ETC. AS PER DRAWING.				
H-1	3 1/2 C X 120 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	12	No.		
H-2	2C X 70 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	224	No.		
H-3	3C X 35 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	16	No.		
H-4	3C X 16 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	4	No.		
H-5	3C X 6 SQ.MM. AL. PVC INSULATED UNARMoured CABLE	64	No.		
H-6	4C X 2.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	20	No.		
H-7	3C X 2.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	168	No.		
H-8	2C X 2.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	728	No.		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
H-9	10C X 1.5 SQ.MM CU . PVC INSULATED UNARMoured CABLE	152	No.		
H-10	3C X 1.5 SQ.MM. CU. PVC INSULATED UNARMoured CABLE	392	No.		
H-11	4C X 1.5 SQMM CU. SCREENED, PVC INSULATED, UNARMoured CABLE	152	No.		
I	LAYING OF FOLLOWING EARTHING MATERIALS AS PER I.E. RULES. EARTHING MATERIALS WILL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS.				
I-1	G.I. FLAT 50 X 6 MM	3,200.00	MTR		
I-2	G.I. FLAT 30 X 5 MM	1,400.00	MTR		
I-3	4 / 3.15 MM DIA G.I. WIRE (INCLUDING FOR ILLUMINATION SYSTEM)	6,000.00	MTR		
J	LAYING OF FOLLOWING SIZE OF CABLE TRAYS, COUPLERS INCLUDING FASTENING ETC. COMPLETE. CABLE TRAYS, COUPLERS & FASTENERS WILL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS.				
J-1	600 MM LADDER TYPE CABLE TRAY (EACH OF 2.5 MTR LENGTH)	300	No		
J-2	450 MM LADDER TYPE CABLE TRAY (EACH OF 2.5 MTR LENGTH)	300	No.		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
J-3	300 MM LADDER TYPE CABLE TRAY (EACH OF 2.5 MTR LENGTH)	200	No.		
J-4	150 MM LADDER TYPE CABLE TRAY (EACH OF 2.5 MTR LENGTH)	200	No.		
K	ERECTION AND ALIGNMENT OF FLEXIBLE CABLE TRAY SUPPORTS CONSISTING OF BASE PLATES, SINGLE & DOUBLE SUPPORT CHANNELS, CANTILEVER ARMS, FASTENERS, CLAMPS, STRAIGHT & ANGLE FITTINGS ETC. SUPPLIED BY BHEL ON FREE ISSUE BASIS .FOR THE DETAILS OF THE SUPPORT MATERIALS PROPOSED TO BE SUPPLIED REFER DETAIL SPECN.	26.000	MT		
L	FABRICATION AND ERECTION (INCLUDING PAINTING) OF SUPPORTS FOR PANELS, CABLE TRAYS, JUNCTION BOXES, PUSH BUTTON STATIONS, INSTRUMENT PANELS ETC. FROM RAW MATERIALS LIKE CHANNELS, ANGLES ETC. SUPPLIED BY BHEL ON FREE ISSUE BASIS .	10.000	MT		
M	INSTALLATION OF ILLUMUNATION , VENTILATION AND AIR CONDITIONING SYSTEM IN ESP AREA / ESP CONTROL ROOM. COLLECTION OF MATERIALS FROM BHEL / CUSTOMER STORES/ STORAGE YARD, LOADING, TRANSPORTING TO SITE OF ERECTION, UNLOADING, ERECTION AND COMMISSIONING OF THE FOLLOWING ILLUMINATION / A.C / VENTILATION EQUIPMENT ETC. COMPLETE AS PER SPECIFICATION & DRG.. ALL THE ELECTRICAL EQUIPMENT AND OTHER FIXING ITEMS WILL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS AT SITE.				
M-1	MAIN LIGHTING DISTRIBUTION BOARD	2	No.		
M-2	SUB LIGHTING DISTRIBUTION BOARD	6	No.		
M-3	FLOURESENT LAMP FITTING / FIXTURES (TWIN LAMP TYPE) WALL MOUNTED OR WITH PENDANT, BALL & SOCKE, CEILING ROSES ETC.	30	SET		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
M-4	HP SODIUM VAPOUR LAMP FITTING / FIXTURE FOR WALL, PLATFORM, COLUMN MOUNTING USING GI PIPES.	158	SET		
M-5	OUTDOOR TYPE LIGHTING JUNCTION BOX. (APPROX. 4"x4") WITH CABLE GLANDS FOR 1 I/C AND 2 O/G CABLE OF SIZE 2C x 2.5 SQMM.	160	No.		
M-6	INDUSTRIAL TYPE 63 Amp AC 3 PIN METAL CLAD WELDING RECEPTACLE WITH SINGLE POLE MCB.	6	No.		
M-7	INDUSTRIAL TYPE 20 Amp AC 3 PIN METAL CLAD SOCKET WITH SINGLE POLE ACB.	4	No.		
M-8	INDUSTRIAL TYPE 5 Amp AC 3 PIN METAL CLAD SOCKET WITH SINGLE POLE MCB.	20	No.		
M-9	FIXING OF 2.7 M GI 50 MM DIA 2 MM THICK TUBE GI TUBE ON STEEL RAILINGS /PLATFORMS ETC. PROPER CLAMPING / WELDING FOR LAMP FITTINGS.	60	No.		
M-10	FIXING OF 800 MM LONG, 32 MM DIA BEND GI TUBE FOR LIGHTING FIXTURES.	40	No.		
M-11	FIXING OF 19 MM DIA 2MM THICK MS RIGID CONDUIT (BLACK PAINTED) INCLUDING RIGID ELBOW & TEE BENDS , CONDUIT UNIONS, 2 / 3 / 4 WAY METALLIC JUNCTION BOXES ETC. USING PROPER CLAMPS FROM CABLE TRAYS / SWITCH BOARDS TO LAMP FITTING CONTROLS AND TO INDIVIDUAL FITTINGS.	3000	MTR		

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
M-12	LAYING & TERMINATION OF FOLLOWING WIRE / CABLES IN RIGID CONDUITS, FLEXIBLE CONDUITS, WALL ETC WITH NECESSARY DRESSING / CLAMPING AS PER SPECIFICATION. WIRES / CABLES AND CABLE LUGS SHALL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS.				
a.	1 C X 2.5 SQMM , PVC INSULATED, MUTISTRANDED, UNARMoured COPPER FRLS, COPPER WIRE .	600	MTR		
M-13	INSTALLATION OF BLOWER MOTOR WITH DUCT AND OTHER ACCESSORIES LIKE COWL, BIRD SCREEN, PREFILTERS, FILTERS & LOUVERS IN ESP CONTROL ROOM.	4	SET		
M-14	INSTALLATION OF 380MM SWEEP EXHAUST FAN WITH ACCESSORIES, FIXTURES etc. IN ESP CONTROL ROOM.	4	SET		
N	CONSULTANCY CHARGES TOWARDS PREPARATION OF DRAWINGS, OBTAINING DRAWING APPROVAL AND SAFETY CLEARANCE FROM CIEG ETC. COMPLETE FOR THE TOTAL SCOPE OF WORK.	1.00	LUMPSUM		
	T O T A L F O R S E C T I O N - I I				
	SERVICE TAX APPLICABLE			RATE _____%	
	TOTAL AMOUNT OF SECTION - II INCLUDING SERVICE TAX				

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SECTION - III

SCHEDULE OF RATE AND QUANTITIES - GRAND TOTAL PRICE

NAME OF WORK : ELECTRICAL WORKS OF ESP INVOLVING HANDLING AT SITE STORES / STORAGE YARD, TRANSPORTATION TO SITE OF WORK, DISMANTLING OF EXISTING COMPONENTS, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL COMPONENTS OF ESP IN UNIT-1 & 2, CPP-II (2X 60 MW), NSPCL, ROURKELA, ODISHA USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , CONSUMABLES, MANPOWER ETC.

SECTION - I : SCHEDULE OF RATES & QUANTITIES FOR ERECTION & COMMISSIONING

SECTION - II : SCHEDULE OF RATES & QUANTITIES FOR SUPPLY OF ILLUMINATION SYSTEM

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S.No.	DESCRIPTION OF WORK	AMOUNT (in Rs.)
01.	SECTION - I : SUPPLY PART OF OF ILLUMINATION SYSTEM - TOTAL AMOUNT INCLUDING VAT	
02.	SECTION - II : ERECTION AND COMMISSIONING OF ENTIRE ELECTRICAL SYSTEM - TOTAL AMOUNT INCLUDING SERVICE TAX	
	GRAND TOTAL AMOUNT FOR THE ENTIRE SCOPE OF ELECTRICAL WORK	

GRAND TOTAL IN WORDS :

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