

# **TENDER SPECIFICATION**

**NO: BHE/PW/PUR/ MAUDT-ELE/775**

**FOR HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, COMPLETE ERECTION,CALIBRATION, TESTING, COMMISSIONING ,FINAL PAINTING AND HANDING OVER OF CABLING PACKAGE, JUNCTION BOXES,MCC,ACP,DAVR,VARIABLE FREQUENCY DRIVES FOR ID FANS,ELECTRO STATIC PRECIPITATOR,SOOT BLOWER SYSTEM,AND ASSOCIATED EQUIPMENTS FOR 2X500 MW NTPC MAUDA TPP UNIT 1&2.**

**AT**

**NTPC MAUDA SUPER THERMAL POWER PROJECT**

**VOLUME – II - PRICE BID**



**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

POWER SECTOR - WESTERN REGION

345, KINGS WAY - NAGPUR 440 001

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THESE TENDER DOCUMENTS CONTAINING VOLUME-II PRICE BID IS ISSUED TO:

M/s.....

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(THESE TENDER DOCUMENTS ARE NOT TRANSFERABLE)

FOR BHARAT HEAVY ELECTRICALS LIMITED

AGM (PURCHASE)

PLACE: NAGPUR

DATE :

**BHARAT HEAVY ELECTRICALS LIMITED : PSWR : Nagpur**  
**T.S. No. BHE/PW/PUR/MAUDT-ELE/775**  
**RATE SCHEDULE VOLUME-II-PRICE BID (Page 1 of 8)**

SN	DESCRIPTION	UOM	TOTAL QTY	UNIT RATE	TOTAL AMOUNT	APPLICABLE TERM OF PAYMENT
<b>E1A CABLE TRAYS AND ACCESSORIES</b>						<b>I.1</b>
E1A.1	Ladder type 600(W) x 120 (H) mm	Mtrs.	4100			
E1A.2	Ladder type 450(W) x 120 (H) mm	Mtrs.	2050			
E1A.3	Ladder type 300(W) x 120 (H) mm	Mtrs.	1125			
E1A.4	Ladder type 150(W) x 120 (H) mm	Mtrs.	7800			
E1A.5	Perforated type 450(W) x 120 (H) mm	Mtrs.	825			
E1A.6	Perforated type 150(W) x 120 (H) mm	Mtrs.	1150			
<b>E1B FLEXIBLE CABLE TRAY SUPPORT AND ACCESSORIES</b>						
E1B.1	Base plate for double support channel	Nos	2200			
E1B.2	Base plate for single support channel	Nos	600			
E1B.3	Double support channel	Mtrs	2800			
E1B.4	Single support channel	Mtrs	1700			
E1B.5	Canti lever arm (C/A) – 650 mm	Nos	600			
E1B.6	Canti lever arm (C/A) – 500 mm	Nos	1340			
E1B.7	Canti lever arm (C/A) – 350 mm	Nos	700			
E1B.8	Canti lever arm (C/A) – 200 mm	Nos	5000			
E1B.9	90 Degree Angle fitting	Nos	3400			
E1B.10	Clamp for double channel (CC2)	Nos	140			

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SN	DESCRIPTION	UOM	TOTAL QTY	UNIT RATE	TOTAL AMOUNT	APPLICABLE TERM OF PAYMENT
E1B.11	Clamp for double channel (CC1)	Nos	6900			
<b>SECTION-E2A : LT POWER CABLES (Generally Unarmoured)</b>						I.2
E2A.1	1C X 630sqmm Aluminium	Mtrs.	1740			
E2A.2	1C X 120sqmm Aluminium	Mtrs.	38600			
E2A.3	1C X 35sqmm Aluminium	Mtrs.	29800			
E2A.4	2C X 120sqmm Aluminium	Mtrs.	44000			
E2A.5	3C X 16sqmm Aluminium	Mtrs.	3000			
E2A.6	3C X 25 sqmm Aluminium	Mtrs.	23000			
E2A.7	3C X 70sqmm Aluminium	Mtrs.	3000			
E2A.8	3C X 2.5sqmm cu.	Mtrs.	51500			
E2A.9	2C X 2.5sqmm cu.	Mtrs.	7000			
E2A.10	2C X 6 sqmm Aluminium	Mtrs.	3000			
<b>SECTION-E2B : LT CONTROL CABLES (Generally Unarmoured,Screened or Unscreened)</b>						I.2
E2B.1	2C ,1.5 sqmm Copper	Mtrs.	3500			
E2B.2	3C 1.5 sqmm Copper	Mtrs.	30000			
E2B.3	7C, 1.5 sqmm Copper	Mtrs.	10500			
E2B.4	12C ,1.5 sqmm Copper	Mtrs.	50000			

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SN	DESCRIPTION	UOM	TOTAL QTY	UNIT RATE	TOTAL AMOUNT	APPLICABLE TERM OF PAYMENT
E2B.5	4C ,1.5 sqmm Copper	Mtrs.	49500			
<b>SECTION-E3 : JUCTION BOXES AND PUSH BUTTON</b>						<b>I.3</b>
E3.1	Junction Boxes ( Power) 450x150x300 mm approx.	Nos.	48			
E3.2	Junction Boxes (Control) 250 x150 x400 mm approx .	Nos.	232			
E3.3	Start Stop Push Button Station 180X100X250 mm approx.	Nos.	304			
E3.4	Local control box for Hoper heaters 800X250X515mm approx.	Nos.	288			
<b>SECTION-E4 : STRUCTURAL STEEL</b>						<b>I.4</b>
E.4.1	Structural Steel fabrication & installation ( MS angle, Channel, Plate etc)	MT	14			
<b>SECTION - E5 A SWITCHGEARS / MCC /PCC</b>						<b>I.5</b>
E5A.1	Soot Blower Motor Control Center, double front, overall dimension approx 16250(W)x2450(H)x1000(D),approx WT 12T, shall be supplied in eight to tan loose shipping sections	Set	2			

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SN	DESCRIPTION	UOM	TOTAL QTY	UNIT RATE	TOTAL AMOUNT	APPLICABLE TERM OF PAYMENT
E5A.2	Auxiliary Control Panel, Overall Dimension approx 11000X1700X2450 mm, approx Weight of each panel 10 MT and supplied in loose shipping sections	Nos	8			
<b>SECTION-E5 B : STARTER PANEL/BOXES/POWER DISTRIBUTION BOX/MARSHALLING BOXES</b>						<b>1.5</b>
E5B.1	Electronic Control Panel, Overall dimensions approx.600X550X2000mm, approx.Weight of each panel 0.3MT. Electronic modules approx .dimension280x210x210mm, rotary switches, etc along with cables and connectors, shall be supplied loose for mounting in the panel at site	Nos	144			
E5B.2	RAPPER CONTROL PANEL Overall dimension approx.1000X500X2050 mm, approx.Weight of each panel 0.20 MT. 4 Nos. RAPCON Electronic modules for each panel (along with cables connectors ) size 280 x210x210 mm shall be supplied loose for mounting in the panel at site	Nos	16			

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SN	DESCRIPTION	UOM	TOTAL QTY	UNIT RATE	TOTAL AMOUNT	APPLICABLE TERM OF PAYMENT
E5B.3	IOS PANEL overall dimension approx.1000x500x2050 mm,approx. Weight of panel 0.2 MT along with loose accessories such as IOS PC, Computer Furniture, Data Logger PC, Printer -4 Nos. PC termination box, peripheral cables etc.	set	2			
E5B.4	STATCON PANEL overall dimension approx.1000x500x2050 mm,approx. Weight of panel 0.2 MT along with loose accessories	sets	8			
E5B.5	DC motor starter panels, etc (DC JOP, DC EOP, Seal oil panel), including resistance boxes. Approx weight 0.5 MT each.	Nos	6			
<b>SECTION-E5C : DIGITAL AUTOMATIC VOLTAGE REGULATOR FOR BRUSHLESS EXCITAION SYSTEM</b>						<b>1.5</b>
E.5C.1	Transportation from store / storage yard to erection site , Erection, Assembly, Testing & Commissioning of Digital Excitation Equipments / System , System consist of DAVR panels & accessories as per tender specification.	Set	2			
<b>SECTION-E5E : VARIABLE FREQUENCY DRIVE SYSTEM FOR ID FANS</b>						<b>1.5</b>

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SN	DESCRIPTION	UOM	TOTAL QTY	UNIT RATE	TOTAL AMOUNT	APPLICABLE TERM OF PAYMENT
E5E.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,Adapter Panels,Control Panels. Reactors ,Transformers, Vacuum Breakers, flexible coupling and associated accessories, as per tender specification.	Set	4			
<b>SECTION E - 5F: MISCELLANEOUS EQUIPMENTS</b>					0	1.5
E5F.1	Ash Level Indicator comprising of level probe with extension lagging pipe, Electronic Unit, Interconnecting Cabling, Conduit, etc.	Set.	576			
E5F.2	Opacity Monitor Consisting of Transmitter & Receiver, Electronic Unit, Air Blower unit, Weather Proof housings, Junction boxes, flexible hoses, mounting flanges with pipe for Transmitter, Receiver & Air blower, interconnec-ted cables etc. for mounting on ESP outlet duct.	Set.	8			
<b>SECTION-E 6 :EQUIPMENT EARTHING MATERIALS</b>						1.6
E6.1	50 x 6 mm GI earthing flat	Mtrs.	2000			
E6.2	30 X 5 mm GI earthing flat	Mtrs.	6800			

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SN	DESCRIPTION	UOM	TOTAL QTY	UNIT RATE	TOTAL AMOUNT	APPLICABLE TERM OF PAYMENT
E6.3	GI earthing wire 8 SWG	Mtrs.	16300			
<b>SECTION-E 7 : ONLY TESTING &amp; COMMISSIONING</b>						<b>1.9</b>
E7.1	Heating elements for Hopper Heater of ESP Panel type	sets	288			
E7.2	Heating elements for Support Insulator Heater, Shaft Insulator Heaters of ESP	Nos.	720			
E7.3	High Voltage Rectifier Transformers (95 KV peak, 1000 mA) including oil filtration.	Nos.	144			
E7.4	Testing & Commissioning of Collecting, Emitting, GD Screen Motor	Nos.	304			
E7.5	Testing and commissioning of 11 KV and 3.3 KV HT motors including dryout.	Nos	38			
E7.6	Testing and commissioning of 415 V LT motors including dry out.	Nos.	738			
E7.7	Generator system testing	Set	2			
E7.8	Testing and Commissioning of soot blower control panel, including mounting of mimic ,	No	2			
E9.9	Testing & Commissioning of Wall, Long Retractable, Air Heater Soot Blower	No	254			
E7.10	Testing & Commissioning of Furnace temperature probe (including solenoids, thermocouple, etc)	No	4			

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E7.11	Thermostats including Calibration.	Nos.	304			
E7.12	Electrically (LT) Operated Valves, Dampers and Gates with Actuators, Limit Switches etc. (Regulating & ON/OFF Type).	Nos.	980			
<b>GRAND TOTAL IN FIGURES IN Rupees</b>						
<b>GRAND TOTAL IN WORDS IN Rupees</b>						

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