

TENDER SPECIFICATION

NO: BHE/PW/PUR/VNT5-ELE U#13/1325

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, HOIST AND ASSOCIATED EQUIPMENTS FOR 1X500 MW NTPC VINDHYACHAL SUPER THERMAL POWER PROJECT UNIT -13.

AT

NTPC VINDHYACHAL
SINGRAULI, MADHYA PRADESH

VOLUME-II-PRICE BID SPECIFICATION



BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR - WESTERN REGION

SHREEMOHINI COMPLEX

345, KINGSWAY - NAGPUR 440 001

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EARNEST MONEY DEPOSIT: Please see Notice Inviting Tender.

LAST DATE FOR: Please see Notice Inviting Tender.

TENDER SUBMISSION:

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING **VOLUME-I-Tech Bid**, **VOLUME- II-Price Bid** AND **VOLIME-IBCD Rev** ARE ISSUED TO:

M/s.

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)

Place: Nagpur

Date:

Handling at Storage Yard/ Stores, Transportation to Site, Calibration, Erection, Testing, Commissioning, Final Painting and Handing over of Electrical Works of NTPC VINDHYACHAL Stage -V and their Auxiliaries etc.							
Sl.no	Discription of items	UOM	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)	Terms of Payments
SECTION-E1: CABLE TRAYS AND ACCESSORIES							I.1
E1.1	Ladder type 600(W) x 120 (H) mm	Mtr	1500				
E1.2	Ladder type 450(W) x 120 (H) mm	Mtr	1500				
E1.3	Ladder type 300(W) x 120 (H) mm	Mtr	1800				
E1.4	Ladder type 150(W) x 120 (H) mm	Mtr	6250				
E1.5	Perforated type 600(W) x 120 (H) mm	Mtr	750				
E1.6	Perforated type 450(W) x 120 (H) mm	Mtr	0				
E1.7	Perforated type 300(W) x 120 (H) mm	Mtr	0				
E1.8	Perforated type 150(W) x 120 (H) mm	Mtr	900				
SECTION-E1: CABLE TRAYSUPPORT AND ACCESSORIES			0				
E1B.1	Base plate for double support channel	Nos	620				
E1B.2	Base plate for single support channel	Nos	2020				
E1B.3	Double support channel	Mtrs	2060				
E1B.4	Single support channel	Mtrs	1540				
E1B.5	Canti lever arm (C/A) – 650 mm	Nos	660				

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E1B.6	Canti lever arm (C/A) – 500 mm	Nos	380				
E1B.7	Canti lever arm (C/A) – 350 mm	Nos	360				
E1B.8	Canti lever arm (C/A) – 200 mm	Nos	940				
E1B.9	90 Degree Angle fitting	Nos	1690				
E1B.10	Clamp for double channel (CC2)	Nos	100				
E1B.11	Clamp for double channel (CC1)	Nos	3740				
SECTION-E2A : LT POWER CABLES (XLPE Armoured)							1.2
E2A.1	1C X 600sqmm Aluminium	Mtrs.	1000				
E2A.2	1C X 120 sqmm Aluminium	Mtrs.	15000				
E2A.3	1C X 70 sqmm copper	Mtrs.	120				
E2A.4	1C X 35sqmm Aluminium	Mtrs.	7000				
E2A.5	3C X 120sqmm Aluminium	Mtrs.	500				
E2A.6	3C X 70 sqmm Aluminium	Mtrs.	3500				
E2A.7	3C X 50sqmm copper	Mtrs.	300				
E2A.8	3C X 25 sqmm Aluminium	Mtrs.	24000				

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E2A.9	3C X 16 sqmm Aluminium	Mtrs.	2000				
E2A.10	3C X 10 sqmm Aluminium	Mtrs.	3000				
E2A.11	3C X 2.5 sqmm Aluminium	Mtrs.	44500				
E2A.12	3C X 2.5sqmm Copper	Mtrs.	75000				
E2A.13	2C X 120sqmm Aluminium	Mtrs.	27500				
E2A.14	2C X 70sqmm Aluminium	Mtrs.	60000				
E2A.15							
E2A.16	2C X 2.5sqmm Copper Unarmoured	Mtrs.	8000				
E2A.17	2C X 2.5 sqmm Aluminium		7500				
SECTION-E2B : LT CONTROL CABLES (Generally Unarmoured/Armoured, Screened/Unscreened)							1.2
E2B.1	14C ,1.5 sqmm Copper, HRPVC Armoured	Mtrs.	15000				
E2B.2	12C ,1.5 sqmm Copper, HRPVC Armoured	Mtrs.	34000				
E2B.3	4C ,1.5 sqmm Copper(Screened, Armoured)	Mtrs.	50000				
E2B.4	3C, 1.5 sqmm Copper, HRPVC Armoured	Mtrs.	34500				
E2B.5	2C, 1.5 sqmm Copper, HRPVC Armoured	Mtrs.	5800				
SECTION-E3 : JUCTION BOXES AND PUSH BUTTON							1.3

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Sl.no	Discription of items	UOM	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)	Terms of Payments
E3.1	Junction Boxes (Size 250x150x400 mm approx).	Nos.	108				
E3.2	Start Stop Push Button Station (Size 180X100X250 mm approx.)	Nos.	152				
E3.3	Junction box Support& Shaft heaters(Size 450X150X300 mm approx.)	Nos.	24				
E3.4	Local Control Box For Hopper Herater(Size 800X515X300 mm approx.)	Nos.	144				
SECTION-E4 : STRUCTURAL STEEL							1.4
E.4.1	Structural Steel fabrication & installation (MS angle, Channel, Plate etc)	MT	30				
SECTION-E5 A:SWITCHGEARS / MCC /PCC							1.5
E5A.1	Soot Blower Motor control Center, double front, Approx overall dimension 16250(L)x2600(H)x1000(W),approx WT 13 T approx., shall be supplied in eight to ten loose shipping sections	Nos	1				
E5A.3	Auxiliary Control Panel, Approx Overall Dimension 5600X1000X2400 mm, approx Weight of each panel 6.5 MT and supplied in loose shipping sections	Nos	4				
SECTION-E5 B : STARTER PANEL/BOXES/POWER DISTRIBUTION BOY/MARSHALLING BOXES							1.5
E5B.1	Electronic Control Panel, Overall dimensions approx.700X650X2000mm, approx.Weight of each panel 0.3MT. BAPCON CONTROLLER approx .dimension 280 x 210 x 210 mm, rotary switches, etc along with cables and connectors, shall be supplied loose for mounting in the panel at site	Nos	72				
E5B.2	RAPPER CONTROL PANEL Overall dimension approx.1000 X 550 X 2000 mm, approx.Weight of each panel 0.30 MT. 32 Nos. RAPCON Electronic modules for each panel (along with cables connectors) size 280 x 210 x 210 mm shall be supplied loose for mounting in the panel at site	Nos	8				

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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	1				
E5B.4	STATCON PANEL overall dimension approx.1000x550x2000 mm,approx. Weight of panel 0.3 MT STATCON CONTROLLER for each panel (along with cables connectors) size approx. 280 x 210 x 210 mm shall be supplied loose for mounting in the panel at site.	sets	4				
E5B.5	DC motor starter panels, etc (DC JOP, DC EOP, Seal oil panel,TDBFP-DCEOP,scanner Air Fan), including resistance boxes. Approx weight 0.5 MT and approx. dimension 1000x800x2200 mm each.	Nos	6				
SECTION-E5D : DIGITAL AUTOMATIC VOLTAGE REGULATOR FOR BRUSHLESS EXCITAION SYSTEM							1.5
E.5D.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	1				
SECTION-E5E : VARIABLE FREQUENCY DRIVE SYSTEM FOR ID FANS							1.5
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	2				
SECTION- E 5F: MISCELLANEOUS EQUIPMENTS							1.5
E5F.1	Ash Level Indicator comprising of level probe with extension lagging pipe, Electronic Unit, Interconnecting Cabling, Conduit, etc.	Set.	288				

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Sl.no	Discription of items	UOM	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)	Terms of Payments
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.	4				
SECTION-E 6 : EQUIPMENT EARTHING MATERIALS							I.6
E6.1	50 x 6 mm GI earthing flat	Mtrs.	3700				
E6.2	30 X 5 mm GI earthing flat	Mtrs.	3100				
E6.3	GI earthing wire Diameter 3.15mm or 8 SWG	Mtrs.	28000				
SECTION-E 9 : ONLY TESTING & COMMISSIONING							I.9
E9.1	Heating elements for Hopper Heater(panel type) of ESP {refer clouse no 2.9.9(3to 5)}	Set	144				
E9.2	Heating elements for Support Insulator Heater, Shaft Insulator Heaters of ESP{refer clouse no 2.9.9(3to 5)}	No	360				
E9.3	High Voltage Rectifier Transformers (95 KV peak, 1200 mA) including oil filtration.	No	72				
E9.4	Testing & Commissioning of Collecting, Emitting, GD Screen Motor	No	152				
E9.5	Testing and commissioning of 3.3 &11KV HT motors including dryout.	No	29				

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E9.6	Testing and commissioning of 415 V LT motors including dry out.	No	265				
E9.7	Generator system testing	Set	1				
E9.8	Testing and Commissioning of soot blower control panel, including mounting of mimic ,	No	1				
E9.9	Testing & Commissioning of Wall, Long Retractable, Air Heater Soot Blower	No	127				
E9.10	Testing & Commissioning of Furnace temperature probe (including solenoids, thermocouple, etc)	No	2				
E9.11	Thermostats including Calibration.	No	152				
E9.12	Electrically (LT) Operated Valves, Dampers and Gates with Actuators, Limit Switches etc. (Regulating & ON/OFF Type).	No	450				
E9.13	Testing commissioning of Electrical Hoist in power plant area	No.	43				
SECTION-E 10 : Other Items		NIL	NIL				
Grand Total in figures (In Rs)							
Grand Total in Words Rs.....							