

TENDER SPECIFICATION

No. BHE/PW/PURMONTI-CLE/481

FOR

Handling at Storage Yard/Stores, Transportation to Site of Work; Erection, Calibration, Testing, Assistance for Commissioning, Final Painting and Handing Over of Electrical and Controls & Instrumentation Work of 2x45MW Steam Turbines, Turbo Generator and their Auxiliaries

at

**Monnet Ispat Limited
Raigarh**

Chhattisgarh

**Part – II
Price Bid Specification**



Bharat Heavy Electricals Limited
(A Government of India Undertaking)
Power Sector - Western Region
Shreemohini Complex
345- Kingsway, Nagpur-440 001

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Power Sector - Western Region

Shreemohini Complex

345-Kingsway, Nagpur-440 001

Issue Details

Tender Specification No. BHE/PW/PUR/MONTI-CLE/481

NAME OF THE WORK:

Handling at Storage Yard/Stores, Transportation to Site of Work; Erection, Calibration, Testing, Assistance for Commissioning Including Final Painting and Handing Over of Electrical and Control & Instrumentation Work of 2x45MW Steam Turbines, Turbo Generators and their Auxiliaries

at

Monnet Ispat Limited

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Earnest Money Deposit: Please refer Section-15 of Special Conditions of Contract

Last Dates for:

(i) Raising Queries: Please see Notice inviting Tender in web page.

(ii) Receipt of offers: Please see Notice inviting Tender in web page.

These tender documents containing **Part- I** and **Part- II** are issued to:

M/s.

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(These tender specification documents are not transferable)

For Bharat Heavy Electricals Limited

Dy. Gen Manager (Purchase)

Place: Nagpur

Date:

Bharat Heavy Electricals Limited: PSWR: Nagpur

Tender Specification No. BHE/PW/PUR/MONTI-CLE/481: Part-II: Price Bid Specification

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HANDLING AT STORAGE YARD/STORES, TRANSPORTATION TO SITE OF WORK; ERECTION, CALIBRATION, TESTING, ASSISTANCE FOR COMMISSIONING INCLUDING FINAL PAINTING AND HANDING OVER OF ELECTRICAL AND CONTROLS & INSTRUMENTATION WORK OF 2X45MW STEAM TURBINES, TURBO GENERATORS AND THEIR AUXILIARIES AT MONNET ISPAT LTD. RAIGARH, CHHATTISGARH. VARIOUS ITEMS OF WORK ARE AS FOLLOWING.					
SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
A	PANELS	As under		N.A.	N.A
A.1	Generator Control Panel 2000(W) x 800(D) x2300 (H) mm, WT-1500KG.	2	Nos		
A.2	Generator Relay & Protection Panel, 1600(W) x 1000 (D) x 2300 (H), WT1200 KG	2	Nos		
A.3	Synchronization Panel 450 (W) x 300 (D) x600 (H), WT100 KG.	2	Nos		
A.4	Auto Synchronizer, 237(W) x 316(D) x 166(H)	2	Nos		
A.5	NGR Cubicle 1500(W) x 2500 (D) x 1500 (H) mm, WT 2000 KG.	2	Nos		
A.6	Generator Line Cubicle consist of PT, CT, Surge Capacitor, 1560 (W) x1000 (D) x 2400 (H), Wt 2000Kg	2	Nos		

Date

Signature & Official Seal of Bidder

Bharat Heavy Electricals Limited: PSWR: Nagpur
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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
A.7	Generator Neutral Side Cubicle consist of CTs, 1200(W) x 800(D) x 2400 (H), WT 2000KG	2	Nos		
A.8	AVR Panel 1150 (W) x 1200(D) x 2295 (H) mm WT 1500 Kg.	2	Nos		
A.9	Vibration Monitor / Panel Bently Nevada 3500 Series including approx 24 nos Displacement, Expansion, Vibration probes and proximeters, Proximeter housing (approx 12 nos), JBs (approx 2 nos), connecting cables and accessories (Sealtite connectors, conduits, etc.).	2	Sets		
A.10	Host computer and TSI monitoring rack and display for Bently Nevada system including accessories and communication cables RS422 (300 meters approx), rack to rack cables, etc.	2	Sets		
A.11	Turbine Control Panel including Woodward digital governor, Governor console board, 800 x 800 x 2300mm, 1500 kg (includes turbine stop and control valves commissioning)	2	Sets		
A.12	Local gauge board	2	Nos		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
A.13	DC Starter Cubicle for EOP (1500 x 1650 x 550 mm, 800 kg)	2	Nos		
A.14	DC Starter Cubicle for JOP	2	Nos		
A.15	CO ₂ Control Panel and associated field instruments	2	Sets		
A.17	SWAS Panel (2115 x 800 x 3000 mm, 800 kg)	2	Sets		
B	FIELD INSTRUMENTS / DEVICES	As under		N.A.	N.A
B.1	Airflow Rotameter, Float type, Range 10-100 KG/HR, NB 1 1/2" PR Class 300RF, Bottom and side conct	4	Nos		
B.2	2/2 watã solenoid valve, SS Body, 220V AC, ASA 1" CL.300	6	Nos		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
B.3	Pressure gauges, DP gauges, Draft Gauges	220	Nos		
B.4	Temperature gauges, bimetallic thermometers, capillary type gauges, etc.	150	Nos		
B.5	Pressure / DP switches	30	Nos.		
B.6	Temperature switches	2	Nos.		
B.7	Level Switches (Float type, Magnetic type, etc)	50	Nos.		
B.8	Smart type Pressure / DP / Flow transmitters	60	Nos.		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
B.9	Level transmitter 2" RF.	6	Nos.		
B.10	Level transmitter, Capacitance type top mounted	6	Nos.		
B.11	Smart Electronic liquid level transmitter, C-C=813MM, WPF, NON IBR, CS CAGE, 2" 150 RF.	4	Nos.		
B.12	Resistance Temperature Devices (RTD), Simplex / Duplex with thermo-well	50	Nos.		
B.13	Chromel Alumel Thermocouples Simplex / Duplex with thermo-well	20	Nos.		
B.14	Magnetic speed pick-up assembly.	4	Nos.		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
B.15	IP Transducers.	30	Nos.		
B.16	Limit Switches	10	Nos.		
B.17	Local Speed Indicator.	2	Nos.		
B.18	Level Gauges	22	Nos.		
C	JUNCTION BOXES, IMPULSE PIPE AND ERECTION MATERIAL	As under		N.A.	N.A
C.1	Weather proof field junction boxes up to 48 terminals	90	Nos.		
C.2	Structural steel	6	MT		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
C.3	SS Tube 6 mm	100	Meters		
C.4	SS Pipe 12.7X 2.1 mm	2000	Meters		
C.5	Cr-Mo Pipe (HTS) 1/2" Sch 40/80	600	Meters		
C.6	CS/AS Pipe 1/2" Sch 40/80	1200	Meters		
C.7	SS Pipe 60.3 x 2.8	200	Meters		
C.8	Copper Tube (6mm/ 1/4")	60	Meters		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
D	BUS DUCT, CABLES, CABLE TRAYS AND ACCESSORIES	As under		N.A.	N.A
D.1	BUS DUCT (45 Meters, 20 tons)	2	Sets		
D.2	SHIELDED CABLE 1 or 2 TRIAD 0.5 SQ.MM.	5000	Meters		
D.3	10 CORE 2.5 SQ. MM. COPPER CABLE	3000	Meters		
D.4	1 Pair / 2 CORE 0.75 / 1.5 SQ. MM. COPPER CABLE-	9000	Meters		
D.5	3 CORE 4 SQ. MM. COPPER CABLE	1600	Meters		
D.6	3CX1.5 PVC/FRLS COPPER CONDUCTOR ARMoured CABLE, 1.1 KV	2500	Meters		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
D.7	5 CORE 2.5 SQ. MM. COPPER CABLE.	5000	Meters		
D.8	ONE or TWO PAIR, 16 AWG, CHROMEL-ALUMEL EXTN CABLE KX	500	Meters		
D.9	3c X 95 Sqmm Power cable for DC Motors	500	Meters		
D.10	CABLE TRAY (Perforated) 50 mm, with or without cover	2000	Meters		
D.11	CABLE TRAY (Perforated/Ladder type) 100 / 150 mm, with or without cover	500	Meters		
D.12	CABLE TRAY (Perforated/Ladder type) more than 150 mm but upto 450mm width, with or without cover	300	Meters		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
D.13	GI wire for above ground earthing	500	Meters		
D.14	GI Flat for above ground earthing	300	Meters		
E	ASSISTANCE FOR COMMISSIONING OF EQUIPMENT ERECTED BY OTHER AGENCIES	As under		N.A.	N.A
E.1	LP dosing system (Hydrazine) with 1 no mixing cum metering tank (MSRL) & 2X100% dosing pumps	2	Sets		
E.2	Oil Centrifuge	2	Sets		
E.3	Pneumatic Control valves including accessories (Viz. I/P converter calibration and re-fixing, position transmitter, air lock etc)	40	Sets		
E.4	Motorized regulating drives	200	Nos.		

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SN	DESCRIPTION	Qty	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
F	GENERATOR INTEGRATED TESTING	As under		N.A.	N.A
F.1	INTEGRATED TESTING/COMMISSIONING CONTROLS AND PROTECTIONS RELAY PANEL OF GENERATOR & ASSOCIATED EQUIPMENTS . Scope of work is as per details in tender specification vide clause No. 4.7.10	2	Sets		
GRAND TOTAL IN FIGURES			Rs.		

GRAND TOTAL IN WORDS: Rupees

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