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TENDER SPECIFICATION

TENDER NO. BHEL/ NR/SCT/RAMGARH/ C&I/843

FOR

“ERECTION, TESTING, COMMISSIONING, TRIAL OPERATION AND HANDING OVER OF ALL C&I PACKAGES FOR 160 MW RAMGARH COMBINED CYCLE POWER PROJECT, RAMGARH DISTT. JAISELMER, RAJASHTHAN.”

PART II– PRICE BID



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northern Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA



ISO 9001, ISO 14001 and
OHSAS 18001 certified
company
SubContract and Purchase
Deptt.

Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northern Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA
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IMPORTANT NOTE

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THIS TENDER SPECIFICATION ISSUED TO:

M/S-----

BOQ CUM RATE SCHEDULE

Tender for the work of 'ERECTION, TESTING, COMMISSIONING, TRIAL OPERATION AND HANDING OVER OF ALL ELECTRICAL AND C&I EQUIPMENTS OF UNIT NO. 2,3 &5 AT MSIL MANESAR,GURGAON".					
Sl. No	ITEM DESCRIPTION	UNIT	QTY	RATE (In ₹)	TOTAL AMOUNT (In ₹)
PANELS / CONSOLES / RACKS					
1	CONTROL CABINETS FOR TG, SG, BOP PANELS,	No.	44		
2	MARK VI PANEL	SET	1		
3	MMI SYSTEM	SET	2		
4	UNIT CONTROL PANEL	SET	1		
5	AVR PACKAGE	SET	2		
6	HMI CONTROL DESK INCLUDING COMPUTER FURNITURES	SET	1		
7	SWAS PANELS	No.	4		
8	SWAS ANALYSERS	No.	42		
9	MASTER CLOCK SYSTEM	SET	1		
10	MASTER CLOCK SYSTEM	SET	1		
11	GT AUX CONTROL PANEL	No.	1		
12	GT FIRE FIGHTING PANEL	No.	1		
13	INLET AIR FILTER PANEL	No.	1		
14	EVAPORATIVE COOLING PANEL	No.	1		
15	GFD PJB	No.	1		
16	GFD CJB	No.	1		
17	GFD LP	No.	1		
18	GD PJB	No.	1		
19	GD CJB	No.	1		
20	GD LP	No.	1		
21	2X12V BATTERY AND CHARGER FOR CO2 SYSTEM	No.	1		
22	STEAM LEAK DETECTION PANEL	No.	1		
23	ASSERTOR PANEL (INCLUDING PROBES)	No.	2		
24	DC EOP/JOP CONTROL PANELS & ACCESSORIES LIKE SERIES RESISTANCE	No.	2		
25	STATOR END WINDING VIB PANEL	No.	1		
26	GENERATOR CO2 PANEL	No.	1		
27	Open Type Instrument Rack	No.	22		
28	Closed Type Instrument Rack	No.	7		
Cable tray erection including supports fabrication / erection					
29	Ladder / perforated cable trays 300 mm wide including 250 mm wide cable duct with cover	Mtr.	250		
30	Ladder / perforated cable trays 150 mm wide including 180 mm wide cable duct with cover	Mtr.	300		
31	Ladder / perforated cable trays 100 mm wide	Mtr.	2500		
32	Ladder / perforated cable trays 50 mm wide including 60 mm wide cable duct with cover	Mtr.	2000		
Junction boxes / Indication boxes / Local control stations.					
33	Junction boxes upto 12 ways / local push buttons / Hooters	No.	20		
34	Junction boxes above 12 & upto 24 ways	No.	40		
35	Junction boxes above 24 & upto 80 ways	No.	12		

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SI. No	ITEM DESCRIPTION	UNIT	QTY	RATE (In ₹)	TOTAL AMOUNT (In ₹)
36	Junction boxes with cold junction compensation (SUV -13)	No.	15		

Power / Control / Signal cables laying, dressing, clamping & termination.

37	2 Core / 1 Pair Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	2000		
38	3 Core / 1 Triad Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	1500		
39	4 Core / 2 Pair Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	3700		
40	5 Core Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	500		
41	7 / 8 Core / 4 Pair / 2 Triad Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	34000		
42	10 - 16 Core / 8 Pair Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	1000		
43	17 - 24 Core / 12 Pair Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	1000		
44	25 - 48 Core / 16-24 Pair Cable (armoured / un-armoured) Core size upto 2.5 Sq. mm	Mtr	1000		
45	3/3.5 C Power Cable Upto 10 sq mm	Mtr	250		
46	3/3.5 C Power Cable 16-50 sq mm	Mtr	250		
47	3/3.5 C Power Cable 70-120 sq mm	Mtr	250		
48	Pre-fabricated cable (upto 50 M length)	No.	8		
49	4P UTP E-CAT & FEP extruded Cable	Mtr	5000		

Impulse pipe / tubing

53	Upto 8 mm Cooper Tube	Mtr	100		
5054	6mm SS Tube	Mtr	100		
55	Upto 1.0 " CS impulse Pipe	Mtr	1800		
56	Upto 1.0 " AS impulse Pipe	Mtr	800		
57	Upto 3/4 " SS impulse Pipe	Mtr	1200		
58	GI Pilica conduit with fittings (upto 1" size)	Mtr	50		
59	GI Pilica conduit with fittings (above 1" size)	Mtr	50		
60	GI rigid conduit upto 1"	Mtr	50		
61	GI Pipe 15 NB	Mtr	50		

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Sl. No	ITEM DESCRIPTION	UNIT	QTY	RATE (In ₹)	TOTAL AMOUNT (In ₹)
<u>Local / Field mounted Instruments / Equipment</u>					
62	UCB mounted instrument / indicator / recorder / control station	No.	30		
63	Vibration racks in UCB / Local Wall Mounted Panel	No.	1		
64	Temperature controller	No.	2		
65	Pneumatic indicating controller	No.	3		
66	Limit Switches	No.	6		
67	Solenoid Valves	No.	200		
68	Air Filter Regulators	No.	8		
69	I / P Convertor	No.	25		
70	FLOW METERS	No.	2		
71	Temp. elements ie.RTDs & Thermocouples (Simplex / Duplex / Triplex, with thermowell)	No.	150		
72	Metal Temperature Measuring Thermocouples (Simplex / Duplex)	No.	28		
73	Analysers	No.	20		
74	Pressure / diff. Pressure / temperature/ level gauge	No.	200		
75	Pressure / diff. Pressure / temperature / level switch	No.	100		
76	Pressure / diff. Pressure / level / position transmitter	No.	130		
77	SENSORS / PICKUPS WITH CABLES				
a	Vibration axial displacement & velocity probes		15		
b	Speed pick up	No	6		
c	Rotameters	No	5		
d	Proximitors	No	10		
e	EWLI	No	2		
78	Printers	No	6		
79	PC set with monitor / keyboard / power supply unit/furniture	No	9		
80	Calibration of SOV operated pneumatic trip Valves	No	5		
81	Calibration / commissioning of regulating Control Valves with positioners / LS / PFT	No	5		
82	Commissioning of motorised actuators	No	5		

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Sl. No	ITEM DESCRIPTION	UNIT	QTY	RATE (In ₹)	TOTAL AMOUNT (In ₹)
	Checking Calibration / commissioning of Solenoid Valves, Switches, Vibration Elements, Detectors, Servo Valves, RTD/T-C etc already mounted on Skid	No	200		
83	Electronic Earthing Pit with electrode	No	4		
84	Fabrication / Erection of structural steel (angles, channels, Fittings etc.)	MT	6		
GRAND TOTAL (In ₹)					

NOTES:

- 1 All dimensions are in mm unless otherwise as specified.
- 2 The quantities indicated above are tentative and are liable to vary depending upon the site requirement. The contractor has to handle / erect / commission all the items indicated by BHEL for achieving the milestones and completion of work.
- 3 Evaluation of bids shall be done on total price against this Rate Schedule / BOQ.
- 4 In case of any mismatch in Rate and amount on Price discrepancy, the same will be dealt as per clause No. 1.4 of GCC.

(Signature, date & seal of authorized representative of the bidder)