



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 02

Ref: PSER:SCT:MUZ-S1405:TCN-02

Date: 22-11-2012

Sub	Tender change notice (TCN) 02.	
Job	Dismantling of existing C&I system, and erection, testing, commissioning etc of new control & instrumentation (C&I) system for 1x110 MW unit # 2 at Muzaffarpur TPS,KBUNL, Bihar.	
Ref	1.0	Tender no PSER:SCT:MUZ-S1405:12.
	2.0	BHEL's NIT, vide reference no PSER:SCT:MUZ-S1405:3012, dated 31-10-2012.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:MUZ-S1405:TCN-01, dated 20-11-2012.
	4.0	Other references (if any).

With reference to above, following points, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 Revised PRICE SCHEDULE, VOL-III A, REV-01 superseding PRICE SCHEDULE, VOL-III A, REV-00 issued earlier along with NIT. **Bidders to quote as per this Price Schedule, REV-01 only. Price quoted as per earlier schedule will not be accepted.**
- 2.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder to submit 'No deviation certificate' as per attached format only.
- 3.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

ENGR (SCT)

Encl

As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 23211798/ 1691

**VOLUME-III
PRICE SCHEDULE, REV-01**

JOB: Dismantling of existing C&I system, and erection, testing, commissioning etc of new control & instrumentation (C&I) system for 1x110 MW unit # 2 at Muzaffarpur TPS, KBUNL, Bihar.

TENDER NO - PSER:SCT:MUZ-S1405:12

PREAMBLE

01	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in filling rates for various items. Clauses under this preamble shall be read in conjunction with various volumes of tender as per NIT together with subsequent changes/ modifications etc thereto as applicable as on date of submission of price offer.
02	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions.
03	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
04	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc equipment, strengthening of roads/culverts/bridges etc including arranging all clearances etc required for carrying out different activities & tests, materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the tender document and this schedule.
05	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing and leveling etc including fixing of grid pillars, benchmarks etc required for commencement of site activities. No separate payment will be made towards the same.
06	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English.
07	The tender shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
08	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
09	The quantities of the various items mentioned in this schedule are approximate, based on preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra item, if any but excluding any price variation remains within twenty percent (20%) of the awarded price as per LOI.
10	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted.
11	Evaluation shall be done based on overall quoted price.

**VOLUME-III
PRICE SCHEDULE, REV-01**

JOB: Dismantling of existing C&I system, and erection, testing, commissioning etc of new control & instrumentation (C&I) system for 1x110 MW Unit # 2 at Muzaffarpur TPS, KBUNL, Bihar.

TENDER NO - PSER:SCT:MUZ-S1405:12

SCH-1 - TOTAL PRICE

SL.NO.	DESCRIPTION OF WORK	ALL INCLUSIVE TOTAL PRICE (Rs)
1.0	TOTAL PRICE FOR DISMANTLING OF EXISTING C&I AND ASSOCIATED SYSTEM ETC, TRANSPORTATION OF THE SAME TO DESIGNATED PLACE AS DIRECTED , BRINGING OF MATERIALS TO REQUIRED WORK SITE, ERECTION, TESTING, COMMISSIONING ETC OF NEW CONTROL & INSTRUMENTATION (C&I) SYSTEM AS PER TENDER TAKING INTO ACCOUNT OF ALL CLARIFICATIONS/MODIFICATIONS TILL DATE FOR 1X110 MW UNIT # 2 AT MUZAFFARPUR TPS, KBUNL, BIHAR.	

NOTES

1.0	BIDDER TO NOTE THAT TOTAL PRICE AT SL NO 1.0 ABOVE WILL BE TAKEN INTO ACCOUNT FOR EVALUTION. AWARDING WILL BE DONE ON QUOTED PRICE AGAINST SL NO 1.0 ABOVE AND SUCH , SHALL BE COMPLETE IN ALL RESPECT FOR FULL SCOPE DEFINED AND IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF TENDER.	
2.0	SL. NO. 1.0 OF SCH-1 SHALL MATCH WITH THE TOTAL PRICE OF SCH-3 & SL. NO. 1.0 OF SCH-2. BIDDER TO NOTE THAT SL. NO. 2.0 OF SCH-2 SHALL NOT BE CONSIDERED FOR EVALUATION & THIS RATE SHALL BE CONSIDERED FOR PAYMENT OF DISMANTLING OF CABLES BEYOND THE QUANTITY INCLUDED IN THE LUMPSUM SCOPE OF SL. NO. 1.0 SCH-2..	
3.0	BHEL RESERVE THE RIGHT TO RATIONALIZE THE RATES, QUOTED BY L-1 BIDDER AGAINST UNIT RATE ITEM NO 2.0 OF SCH-2 WITH RESPECT TO THE LOWEST RATES (AMONGST THE PARTICIPATING BIDDERS), BEFORE PLACEMENT OF ORDER.	
4.0	SERVICE TAX (INCLUDING EDUCATION CESS) SHALL BE PAID EXTRA AS DETAIL IN TENDER. HENCE BIDDER'S QUOTED RATE SHOULD BE EXCLUSIVE OF SERVICE TAX.	
5.0	TO QUOTE PRICE ONLY IN INTERNATIONAL NUMERALS AND ENGLISH WORDS BREAK UP NOT TO BE SHOWN UNLESS AND OTHERWISE SPECIFICALLY ASKED FOR IN THE TENDER	
6.0	BIDDER SHALL FURNISH ITEM-WISE BREAK UP OF ABOVE TOTAL PRICE IN THE RESPECTIVE SCHEDULE AS PER FOLLOWING. TOTAL PRICE OF VARIOUS SCHEDULES SHALL MATCH WITH ABOVE TOTAL PRICE IN LINE WITH NOTE-2.0 ABOVE..	
6.1	SCH-2 - DISMANTLING OF EXISTING C&I SYSTEM. PAYMENT OF CABLES SHALL BE ON WEIGMENT BASIS .	
6.2	SCH-3 - ERECTION , TESTING , COMMISSIONING ETC OF NEW C&I SYSTEM	

VOLUME-III
PRICE SCHEDULE, REV-01

JOB: Dismantling of existing C&I system, and erection, testing, commissioning etc of new control & instrumentation (C&I) system for 1x110 MW unit # 2 at Muzaffarpur TPS, KBUNL, Bihar.

TENDER NO - PSER:SCT:MUZ-S1405:12

SCH-2- DISMANTLING WORK

SL.NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	TOTAL AMOUNT (IN Rs) (In figures)	TOTAL AMOUNT (IN Rs) (In Words)
1.0	TOTAL LUMP SUM PRICE FOR DISMANTLING OF EXISTING C&I AND ASSOCIATED SYSTEM AS REQUIRED FOR INSTALLATION OF THE NEW INSTRUMENTS , CABLE, TRAYS ETC EXCLUDING CABLES AS DIRECTED BY BHEL, TRANSPORTATION OF THE SAME TO THE DESIGNATED PLACES AS DIRECTED BY CUSTOMER/ BHEL FOR 1X110 MW UNIT # 2 AT MUZAFFARPUR TPS, KBUNL, BIHAR .	1	LUMP SUM		
2.0	DISMANTLING OF CABLES , TRANSPORTATION TO DESIGNATED PLACE & STORING/DUMPING AS DIRECTED BY CUSTOMER/ BHEL FOR 1X110 MW UNIT # 2 AT MUZAFFARPUR TPS, KBUNL, BIHAR .	20	MT		

VOLUME-III
PRICE SCHEDULE, REV-01

JOB: Dismantling of existing C&I system, and erection, testing, commissioning etc of new control & instrumentation (C&I) system for 1x110 MW unit # 2 at Muzaffarpur TPS, KBUNL, Bihar.

TENDER NO - PSER:SCT:MUZ-S1405:12

SCH-3- RATE SCHEDULE (ERECTION , TESTING ,COMMISSIONG OF C&I WORK)

SL NO	MATERIAL DESCRIPTION	QUANTITY	UNIT RATE (Rs)	AMOUNT (Rs)
PRICE FOR ERECTION, TESTING, COMMISSIONING ETC OF NEW CONTROL & INSTRUMENTATION (C&I) SYSTEM AS DETAILED IN TENDER FOR THE FOLLOWING				
T.1.23	SOOT BLOWER MOTOR CONTROL CENTRE (5 BLOCK) (FOR U-1 & U-2)	2	No	
T.1.28	UCB AND FAP DISPLAYUNIT(12 PORT)	4	No	
T.1.29	ASCERTOR CABINET (EWLI)	2	No	
T.1.30	EWLI BODY ASSEMBLY (12 PORTS)	2	No	
T.1.31	ELECTRODE PROBE WITH GASKETS	12	No	
T.1.69	PURGE METER-TCI	12	No	
T.1.70	PA Fan A&B vane control actuator with fail freeze type (FOR U-1 & U-2)	4	No	
T.1.71	Cold air control damper actuator with I/P Convertors (FOR U-1 & U-2)	12	No	
T.1.72	Hot air damper control actuator with I/P Convertors (FOR U-1 & U-2)	12	No	
T.1.73	FD Fan A&B vane control damper actuator with fail freeze	2	No	

SL NO	MATERIAL DESCRIPTION	QUANTITY		UNIT RATE (Rs)	AMOUNT (Rs)
T.1.74	FACE CUTTER ASSEMBLY (FOR U-1 & U-2)	2	No		
E.1.1	FLAME SCANNER PANEL CJF07	1	No		
E.1.2	MFT-1,2,3 & Unit Panel (CJF01-04)	4	No		
E.1.3	SUITE OF 3 (CJF23, CJF24, CAF20)	3	No		
E.1.4	SUITE OF 3 (CJF25, CJF26, CAF21)	3	No		
E.1.5	SUITE OF 3(CJF27,CJF28,CAF31).	3	No		
E.1.6	SUITE OF 2 (CAF16 & 17)	2	No		
E.1.7	SUITE OF 2 (CJF20-21)	2	No		
E.1.8	SUITE OF CJJ03 AND CJJ04	2	No		
E.1.9	SUITE OF CCA01-CCA03	3	No		
E.1.10	SUITE:CCA04	1	No		
E.1.11	SUITE OF CRE01 AND CRE02	2	No		
E.1.12	SUITE OF CRE03 AND CRE04	2	No		
E.1.13	SUITE OF CRE05 AND CRE06	2	No		
E.1.14	SUITE OF CRE07 AND CRE08	2	No		
E.1.15	SUITE OF CRE09 AND CRE10	2	No		
E.1.16	SUITE OF CRE11 AND CRE12	2	No		
E.1.17	SUITE OF CRE13 AND CRE14	2	No		
E.1.18	SUITE OF CRE15 AND CRE16	2	No		
E.1.19	SUITE OF CRE17 AND CRE18	2	No		
E.1.20	SUITE OF CRE19 AND CRE20	2	No		
E.1.21	SUITE OF CRE51 AND CRE52	2	No		
E.1.22	SINGLE CUB. CTE01	1	No		
E.1.23	SINGLE CUB. CTE02	1	No		
E.1.24	TRANSDUCER PANEL CFA01 AND CFA02	2	No		

SL NO	MATERIAL DESCRIPTION	QUANTITY		UNIT RATE (Rs)	AMOUNT (Rs)
E.1.25	Unit Control Panel	1	No		
E.1.26	Electrical Control Panel	1	No		
E.1.27	NETWORK PANEL HMI NWP03	1	No		
E.1.28	NETWORK PANEL DCS NWP06	1	No		
E.2.1	POWER DISTRIBUTION BOARD	22	No		
E.2.2	COLOR LASER PRINTER-A4	5	No		
E.2.3	DOT matrix Printer	2	No		
E.2.4	max Workstation (PC)	13	No		
E.2.5	ELECTRONIC PRESSURE, DP & LEVEL TRANSMITTER	350	No		
E.2.6	FRP JUNCTION BOX- 12 WAY	30	No		
E.2.7	FRP JUNCTION BOX- 24 WAY	80	No		
E.2.8	FRP JUNCTION BOX-48 WAY	120	No		
E.2.9	FRP JUNCTION BOX-64 WAY	70	No		
E.2.10	COLD JUNCTION COMPANSATION BOX	50	No		
E.2.11	LEVEL TRANSMITTER	12	No		
E.2.12	TEMEPRATURE ELEMENTS (Thermocouple's & RTD's)	350	No		
E.2.13	E/P Convector	80	No		
E.2.14	Pr Switch	25	No		
E.2.15	Pr Gauge	150	No		
E.2.16	Temp gauge	125	No		
E.2.17	LEVEL GAUGE	25	No		
E.2.18	SPEED SENSOR	6	No		
E.2.19	LIMIT SWITCH	50	No		
E.2.20	Air Filter Regulator	30	No		

SL NO	MATERIAL DESCRIPTION	QUANTITY		UNIT RATE (Rs)	AMOUNT (Rs)
E.2.21	FLUE GAS ANALYSER (SOX/NOX/CO2)	1	No		
E.2.22	OXYGEN ANALYSER	3	No		
E.2.23	CO ANALYSER	1	No		
E.2.24	LOCAL INSTRUMENT ENCLOSURE	29	No		
E.2.25	LOCAL INSTRUMENT RACK	45	No		
E.2.26	IMPULSE PIPE A335 P22 1/2" NBXXS	600	M		
E.2.27	IMPULSE PIPE A335 P22 1/2" NB SCH 80	350	M		
E.2.28	IMPULSE PIPE A335 P22 3/4" NB SCH 80	500	M		
E.2.29	IMPULSE PIPE A106 GR C 1/2" NB SCH 160	800	M		
E.2.30	IMPULSE PIPE A106 GR C 1/2" NB SCH 80	5250	M		
E.2.31	IMPULSE PIPE A106 GR C 3/4" NB SCH 80	1800	M		
E.2.32	ASTMA 106 GR C 1" NB SCH 80	50	M		
E.2.33	ASTMA 312 TP 316 3/4" NB SCH 160	600	M		
E.2.34	ASTMA 312 TP 316 3/4" NB SCH 80	300	M		
E.2.35	CONDENSATE POTS	150	No		
E.2.36	INSTRUMENT VALVE 1/2" SW TYPE 800 /1500 CLASS	150	No		
E.2.37	MODULER DESK	1	No		
E.2.38	COMPUTER FURNITURE	14	No		
E.2.39	TURBINE SUPERVISORY INSTRUMENTS (TSS IMPORTED PORTION)	1	Set		
E.2.40	TURBINE SUPERVISORY INSTRUMENTS (TSS INDIGENOUS PORTION)	1	Set		
E.2.41	PERFORATED TYPE CABLE TRAYS 50 MM W X 25H X 2.5Mtrl	2500	M		

SL NO	MATERIAL DESCRIPTION	QUANTITY		UNIT RATE (Rs)	AMOUNT (Rs)
E.2.42	PERFORATED TYPE CABLE TRAYS 100MMW X 25H X 2.5Mtrl	3500	M		
E.2.43	DUCT TRAY	300	M		
E.2.44	GI PIPE 1/2" NB HEAVY GRADE/AS PER IS1239 THREADED ENDS (1/2" NPT) (FOR U-1 & U-2)	9000	MTR.		
E.2.45	GI PIPE 1" NB HEAVY GRADE/AS PER IS1239 THREADED ENDS (1" NPT) (FOR U-1 & U-2)	400	MTR.		
E.3.0	UPS WITH ACDB				
E.3.1	UPS-A RECT. PANEL WITH SIDE DOOR AND CANOPY	1	No		
E.3.2	UPS-A INV. PANEL WITH CANOPY	1	No		
E.3.3	UPS-B INV. PANEL WITH CANOPY	1	No		
E.3.4	UPS-B RECT. PANEL WITH CANOPY	1	No		
E.3.5	AUX PANEL WITH SIDE DOOR AND CANOPY	1	No		
E.3.6	NON COMPART TYPE ACDB-1 CUB-1 WITH SIDE DOOR	1	No		
E.3.7	NON COMPART TYPE ACDB-1 CUB-2 WITH SIDE DOOR	1	No		
E.3.8	NON COMPART TYPE ACDB-2 CUB-1 WITH SIDE DOOR	1	No		
E.3.9	NON COMPART TYPE ACDB-2 CUB-2 WITH SIDE DOOR	1	No		
E.3.10	BATTERY FOR UPS	1	SET		
E.4.0	SAMPLE HANDLING SYSTEM CONSISTING OF-				
E.4.1	PRIMARY RACKS	1	No		
E.4.2	WET PANEL	1	No		
E.4.3	DRY PANEL	1	No		
E.4.4	CHILLER	1	No		
E.5.0	SWAS ANALYSER CONSISTING OF-				
E.5.1	CONDUCTIVITY ANALYSER	8	No		
E.5.2	DISSOLVED OXYGEN ANALYSER	2	No		

SL NO	MATERIAL DESCRIPTION	QUANTITY		UNIT RATE (Rs)	AMOUNT (Rs)
E.5.3	pH ANALYSER	3	No		
E.5.4	SILICA ANALYSER	2	No		
E.6.0	CABLE				
E.6.1	NETWORK CABLE E-CAT5 UTP 24AWG 305 METERS	7015	M		
E.6.2	1CORE 120 SQMM AYY FRLS	2000	M		
E.6.3	1CORE 35 SQMM AYY FRLS	12000	M		
E.6.4	2CORE 6 SQMM AYY FRLS	16000	M		
E.6.5	2 PAIR X 0.5 SQ MM	6000	M		
E.6.6	4 PAIR X 0.5 SQ MM	105000	M		
E.6.7	8 PAIR X 0.5 SQ MM	20000	M		
E.6.8	12 PAIR X 0.5 SQ MM	1000	M		
E.6.9	2Px16AWG (1.31SQMM TC CABLE)	8000	M		
E.6.10	6Px16AWG (1.31SQMM TC CABLE)	10000	M		
E.6.11	THERMOCOUPLE EXTN CBL 2/2X0.5MM ² IT-3	3000	M		
E.6.12	4 TRIAD CABLE FOR ALL SENSORS (TSI)	3000	M		
E.6.13	1PAIR CABLE FOR 4-20mA SIGNALS TO LOCAL INDICATORS (TSI)	4000	M		
M.1.1	H2 SEAL OIL PANEL	1	Set		
M.1.2	GOVERNING CONSOLE BOARD	1	No		
M.1.3	PRESSURE INDICATING SWITCH 0-160KG/CM2	8	No		
M.1.4	PRESSURE INDICATING SWITCH 0-4KG/CM2	1	No		
M.1.5	GLAND STEAM HP/IP TURBINE INLET PR.CV	1	No		
M.1.6	GLAND STEAM HP/IP TURBINE DUMP PR.CV	1	No		
M.1.7	HOTWELL MAKEUP LVL CONTROL VALVE	1	No		
M.1.8	DEARATOR LVL CONTROL VALVE	1	No		
M.1.9	HPH-2 DRIP TO HPH-1LVL CONTROL VALVE	1	No		

SL NO	MATERIAL DESCRIPTION	QUANTITY		UNIT RATE (Rs)	AMOUNT (Rs)
M.1.10	HPH-1 DRIP TO DEARATOR LVL CONTROL VALVE	1	No		
M.1.11	HPH-1 DRIP TO LPS-5 LVL CONTROL VALVE	1	No		
M.1.12	LPH-5 DRIP TO LPH-4 LVL CONTROL VALVE	1	No		
M.1.13	LP GLAND STEAM PRESSURE CONTROL VALVE	1	No		
M.1.14	EMERGENCY HOWELL MAKEUP LVL CV	1	No		
M.1.15	DESUPER HEATER FOR GLAND STEAM	1	No		
M.1.16	CHANGE OVER CV FOR HP LEAKOFF-1	1	No		
M.1.17	CHANGE OVER CV FOR HP LEAKOFF-2	1	No		
M.1.18	BPF FLOW NOZZLE FOR 120 MW	2	No		
M.1.19	CONDENSATE FLOW ORIFICE	1	No		
M.1.20	MAKEUP FLOW ORIFICE	1	No		
	TOTAL PRICE				

FORMAT FOR NO DEVIATION CERTIFICATE
(To be submitted in the bidder's letter head)

BHARAT HEAVY ELECTRICALS LIMITED,
Power Sector - Eastern Region,
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Dismantling of existing C&I system, and erection, testing, commissioning etc of new control & instrumentation (C&I) system for 1x110 MW unit # 2 at Muzaffarpur TPS, KBUNL, Bihar.	
Ref	1.0	Tender no PSER:SCT:MUZ-S1405:12
	2.0	BHEL's NIT, vide reference no PSER:SCT:MUZ-S1405:3012, dated 31-10-2012.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:MUZ-S1405:TCN-01, dated 20-11-2012.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:MUZ-S1405:TCN-02, dated 22-11-2012.
	5.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

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