



Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Power Sector – Eastern Region

Plot No. 9/1, Block-DJ, Salt Lake City,
Kolkata – 700 091 (INDIA)

Phone no. 033 - 2321 1691

Fax : 033 - 2321 1960

Web : www.jantermanter.com / www.bhel.com

TENDER CHANGE NOTE 03 (TCN – 03) DT: 13-11-2008

SUB: ERECTION, TESTING & COMMISSIONING OF BOILER INCLUDING MILLS, ESP, ROTATING MACHINES & PIPING ETC FOR 1x250 MW UNIT-1 BONGAIGAON THERMAL POWER STATION SALAKATI, KOKRAJHAR, ASSAM

REF: TENDER NO: PSER:SCT:SAL-B936:08

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

- 1.0 Introduction of PGMA's to the 'LIST OF PIPING' under sub-heading '**TG & LP Piping**' indicated in ANNEXURE-B Part –A (For Main Boiler – Unit -1) of TCN-02 Dt:11-11-08 as below.

PGMA	Description	Wt/Boiler (Kgs)
80901	SUB DELIVERY VALVES FOR LIGHT UP	500
80922	H&S FOR BOILER LIGHT UP - TG	20,000
80930	H&S FOR SYNCHRONISATION - TG	15,000
80933	H&S FOR LP PIPING	4,500

- 2.0 Revised '**ESTIMATED WEIGHT OF VARIOUS PRODUCT GROUPS OF AUXILIARY BOILER**' superseding the same issued earlier in ANNEXURE-B Part –B of TCN-02 Dt:11-11-08 as per Annex-1 below.
- 3.0 Revised Volume-III (Price Schedule)-(Rev-01), superseding VOL-III (Rev.00) issued earlier along with NIT. (File-1)

BIDDERS ARE REQUESTED TO NOTE THAT THE REVISED PRICE SCHEDULES (REV-01) SUPERSEDES PRICE SCHEDULES ISSUED EARLIER. BIDDERS SHALL SUBMIT THEIR OFFER ONLY AS PER REVISED PRICE SCHEDULES (REV-01). OFFER FROM BIDDER IN SUPERSEDED PRICE SCHEDULES WILL NOT BE CONSIDERED.



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BIDDERS ARE REQUIRED TO SUBMIT A DECLARATION IN TECHNO-COMMERCIAL OFFER THAT THEY HAVE SUBMITTED THEIR PRICE BID IN SEALED ENVELOP AS PER REVISED PRICE SCHEDULES (REV-01) ONLY.

All other terms & conditions shall remain unchanged.

Based on above, offer shall be submitted by revised due date, ie 15-11-2008.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

DGM (SCT)



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ANNEXURE-1

B. ESTIMATED WEIGHT OF VARIOUS PRODUCT GROUPS OF AUXILIARY BOILER

PRODUCT GROUP (PG)	DESCRIPTION OF PG	DESIGN WEIGHT (MT)
GROUP-VIII.1 : PRESSURE PARTS		
04	BOILER DRUM WITH INTERNALS	31
06	WATER WALL & TUBES	16.5
07	CIRCULATION SYSTEM BANK TUBES	20.7
09	SEAL BOXES	0.7
10	SUPER HEATER HEADERS	1
11	SUPER HEATER COILS	0.7
12	SH SPACER TUBES, SAT. LINKS, DESH & DESH LINKS, SH HANGERS & SUPPORTS	3.2
19	ECONOMISER COILS, HEADERS & PIPES	0.3
20 & 21	SOOT BLOWERS & PIPING	2
28	FURNACE DOORS & FASTENERS	1.5
31	SKIN CASING & COMPONENTS	2
37	BOILER OUTER CASING	1.5
24	BOILER TRIM PIPING, SAFETY VALVES, SILENCERS, NAME PLATES ETC.	8.4
41,42& 43	OIL SYSTEM , IGNITOR, SCANNER & AIR SYSTEM	4.4
	SUB TOTAL	94
GROUP-VIII.2 : NON-PRESSURE PARTS		
30	MAIN BOILER ENCL.	0.7
32 ,33 & 81	FIXING COMPONENTS /IRON PARTS INSULATION	80
35 & 36	MAIN BOILER STRUCTURES MAIN FLOORS, STAIRS & LADDERS ETC.	79
48& 57	AIR DUCTS, FLUE GAS DUCTS, DAMPERS, EXPN. JOINTS, DUCT SUPPORTS ETC.	18
87	CHIMNEY INCL. CHIMNEY INSULATION	40
99*	MISC. HANDLING EQUIPMENT	2
	SUB TOTAL	219
GROUP-VIII.3 : ROTATING MACHINES		
55 & 56	FD, ID & PA FANS WITH SUB-DELIVERIES	9.5
-	MOTORS (ID,FD ,PA ,MILLS, SA,SC ETC	2.5
97	PNEUMATIC ACTUATORS, MTM PADS & CLAMPS ETC.	0.5
	SUB TOTAL	12.5
GROUP-VIII.4 : PIPING		
80 & 81	PIPING (REFER BELOW FOR DETAILS)	134.7



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THE INDICATIVE PIPING PGMA LIST FOR AUXILIARY BOILER IS LISTED BELOW:

PGMA	APPROX WT(Kgs)	DESCRIPTION
80300	900	Ms From Superheater
80345	2100	Aux.Steam For Oil Li
80366	700	Ibd Tank Vent To Atm
80417	500	Boiler Feed Discharg
80418	100	Erection Materials F
80420	700	Boiler Feed Pump Suc
80421	200	Boiler Feed Pump Rec
80446	500	Deaerating Heater Ov
80450	300	Cbd And Emergency Dr
80451	400	Boiler Integral Pipi
80453	200	Lp Piping Drains-Sg
80460	600	Sg Aux Cooling Water
80473	600	Dm Water System
80600	100	Hp Dosing
80601	100	Lp Dosing
80612	200	Service Air For Unit
80616	400	Inst Air For Unit
80650	500	Heavy Fuel Oil Main
80901	600	Sd Valves&Specialiti
80904	900	Bhel Valves-Boiler H
80905	5500	Bhel Valves-Boiler L
80920	2600	H&S For Boiler Hydro
80921	3600	H&S For Boiler Light
80922	900	H&S For Boiler Light
80992	10	Imported Electrodes
81005	2300	Inter Blow Down Expa
81026	23200	Tray Type Deaerator
81034	2800	Platform&Stairs For
81104	3500	Boiler Feed Pump
81127	3000	Lp Dosing System
81128	3000	H P Dosing System
96191	10000	Lt / Valve & Damper
80300	900	MS FROM SUPERHEATER TO BOILER STOP VALVE
80345	2,300	AUX STEAM TO DEAERATING HEATER
80366	800	IBD TANK VENT TO ATMOSPHERE



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80417	500	BOILER FEED DISCHARGE PIPING
80418	200	ERECTION MATERIALS FOR INSTRUMENTS
80420	700	BOILER FEED PUMP SUCTION
80421	300	BOILER FEED PUMP RECIRCULATION
80446	600	DEAERATING HEATER OVER FLOW AND DRAIN
80450	400	CBD AND EMERGENCY DRUM DRAIN
80451	400	BOILER INTEGRAL PIPING DRAINS
80453	300	LP PIPING DRAINS - SG SCOPE
80460	600	SG AUX COOLING WATER UNIT SYSTEM
80473	600	DEMINERALISED WATER SYSTEM
80600	200	HIGH PRESSURE DOSING PIPING
80601	80	LOW PRESSURE DOSING PIPING
80612	300	SERVICE AIR FOR INDIVIDUAL UNITS
80616	400	INSTRUMENT AIR FOR INDIVIDUAL UNIT
80650	1,000	FUEL OIL SUPPLY AND RETURN PIPING
80901	700	SUB DELIVERY VALVES FOR LIGHT UP
80904	1,000	BHEL VALVES FOR HYDRO TEST
80905	5,500	BHEL VALVES FOR LIGHT UP
80920	2,000	H&S FOR HYDRO TEST
80921	4,000	H&S FOR LIGHT UP STEAM LINE
80922	1,100	H&S FOR LIGHT UP - NON STEAM LINES
80992	30	IMPORTED ELECTRODES
81005	2,400	INTERMITTENT BLOW DOWN EXPANDER-D1500 MM
81026	24,000	TRAY TYPE DEAERATOR BELOW 100 cuM/HR
81034	2,800	PLATFORM & STAIRS FOR FEED TANK & DEARTR
81104	3,600	BOILER FEED PUMP
81127	3,000	LOW PRESSURE DOSING SYSTEM
81128	3,000	HIGH PRESSURE DOSING SYSTEM

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4. THE PGMA_s SHOWN FOR PIPING ARE INDICATIVE AND THERE IS LIKELIHOOD OF ADDITION OF FEW MORE PGMA_s FOR HANGERS & SUPPORTS, DRAINS, VENTS, FITTINGS ETC.

**VOLUME-III
PRICE/RATE SCHEDULE, REV-1**

Complete work of unloading & positioning of boiler drum, handling including receipt of materials from BHEL/client's stores/storage yard, arranging their issue, site transportation, temporary storage prior to erection, if required, cleaning, transportation to site preservative painting, erection, alignment, welding, leveling, adjustment, chipping & leveling of foundation, all pre-commissioning tests, commissioning, start-up and trial operation and handing over of total boiler & its auxiliaries including all rotating machines & piping etc and a complete auxiliary boiler of 1x250 MW Unit at NTPC Bongaigaon,Salakati ,Dist-Kokrajhar,Assam

TENDER NO :- PSER:SCT: SAL-B936:08

PRICE/RATE SCHEDULE

Bidders are requested to submit their price only as sought under price schedule below :-

GROUP	DESCRIPTION OF ITEM	APPROXIMATE WEIGHT (IN MT)	UNIT RATE (In Rs)	TOTAL AMOUNT (IN Rs) (In figures & In Words)
		A	B	A x B
I	PRESSURE PARTS	2582.00		
II	TRIM PIPING	242.00		
III	ROTATING MACHINES	2011.00		
IV	NON-PRESSURE PARTS	8574.00		
V	ELECTRO STATIC PRECIPITATOR	3157.00		
VI	PIPING (EXCEPT P-91 PIPING)	947.00		
VII	PIPING -P-91	90.00		
VIII	AUXILIARY BOILER			
VIII.1	PRESSURE PARTS	94.00		
VIII.2	NON-PRESSURE PARTS	219.00		
VIII.3	ROTATING MACHINES	12.00		
VIII.4	PIPING	134.00		
IX	UNLOADING OF MAIN BOILER DRUM	LUMPSUM		
X	PROVIDING PG TEST ASSISTANCE	LUMPSUM		
TOTAL				

NOTES				
1.0	FOR DETAILS OF PGs COVERED UNDER DIFFERENT GROUPS, PLEASE REFER TO RELEVANT ANNEXURES & TCNs.			
2.0	BESIDES ABOVE PRODUCT GROUP, THERE IS LIKELIHOOD OF ADDITION OF NEW PG UNDER THE ABOVE GROUP HEADS DUE TO RELEASE OF SOME ITEMS INTEGRAL TO BOILER. THE QUOTED RATES SHALL BE APPLICABLE FOR SUCH PGs ALSO WITHIN THE STIPULATED VARIATION LIMIT.			
3.0	ANY WORK NOT COMING UNDER THE SPECIFIED PGs OF PRESSURE PARTS, WILL QUALIFY FOR PAYMENT AS PER THE PAYMENT TERMS OF NON-PRESSURE PARTS.			