



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 02

Ref: PSER:SCT:ABJ-I1319:TCN-02

Date: 11-04-2012

Sub	Tender change notice (TCN) 02.	
Job	Erection, Testing, Commissioning of Control & Instrumentation work of Station, Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.	
Ref	1.0	Tender no PSER:SCT:ABJ-I1319:12.
	2.0	BHEL's NIT, vide reference no PSER:SCT:ABJ-I1319:2755, dated 22-03-2012.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:ABJ-I1319:TCN-01, dated 02-04-2012
	4.0	All other pertinent issues till date.

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

- 1.0 Due date of submission of offer is extended from 12-04-2012 to **16-04-2012**.
- 2.0 Revised Price Schedule, Volume-III A, Rev-1 attached. Bidder shall quote as per this revised Volume-III A, Rev-1 only.
- 3.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 4.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

ENGR (SCT)

Encl

- 1.0 As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

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

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

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	Erection, Testing, Commissioning of Control & Instrumentation work of Station, Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.	
Ref	1.0	Tender no PSER:SCT:ABJ-I1319:12.
	2.0	BHEL's NIT, vide reference no PSER:SCT:ABJ-I1319:2755, dated 22-03-2012.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:ABJ-I1319:TCN-01, dated 02-04-2012
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:ABJ-I1319:TCN-02, dated 11-04-2012
	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)

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

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

PREAMBLE

01	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in 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 (taxes, duties shall be as per tender terms, Vol- IF) , 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 grass , making benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.
06	The quantities of the various items mentioned in this schedule of items are approximate, based on very 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 items, if any but excluding any price variation remains, within fifteen percent ($\pm 15\%$) of the awarded price as per LOI.
07	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.
08	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.
09	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.
10	The final payment shall be on the basis of actual quantity erected and all payment shall be made on the basis of unit rates. The unit rate for identical item shall be same in all places of BOQ/ Rate schedule.
11	The rebate, if any offered by the bidder shall apply to all unit rate prices and unit rate prices quoted by the bidder shall be reduced proportionately, unless specified otherwise by bidder.
12	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.

**VOLUME-III A
PRICE SCHEDULE, REV-1**

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) ABHIJEET INFRASTRUCTURE LIMITED, CHANDWA, JHARKHAND.

**TENDER DOCUMENT NO - PSER:SCT:ABJ
SUMMARY**

SL NO	ITEM/SCHEDULE	TOTAL AMOUNT (₹)
1	Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) ABHIJEET INFRASTRUCTURE LIMITED, CHANDWA, JHARKHAND.	
GRAND TOTAL		

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

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

SL NO	DESCRIPTION OF ITEM	QTY FOR BOTH UNITS	UNIT RATE (₹)	TOTAL AMOUNT (₹)	BILLING SCHEDULE REF.
1.0	PANELS & CUBICLES				
1.1	DDCMIS Cabinet :				
1.1.1	For Station C&I (800X800X2415)	76	NO		6
1.1.2	For Steam Generator (800X800X2415)	40	NO		6
1.1.3	For Turbo Generator (800X800X2415)	50	NO		6
1.2	Cabinet for Transducers-(CFA01) non maxDNA panel. (800X800X2415)	2	NO		6
1.3	Interposing Relay Panel- non maxDNA panel CTE-01, 02 & 03. (800X800X2415)	6	NO		6
1.4	Unit Control Panel (UCP) CWD 01 (1500 X 800 X 2415)	2	NO		6
1.5	Electrical control Panel (ECP) CWP01	2	NO		6
1.6	Modular operator desk	1	NO		6
1.7	Network Interface Panel (800x800X2415) NWSA 01,NWSA 02,NWSA 03.	6	NO		6
1.8	Master Slave (GPS) Clock & Panel (Common for Units 1 & 2) (900X600X2415)	1	NO		6
1.9	Steam Leak detection Panel (800x800x2315) & PC	2	NO		6
1.10	ID/FD/PA/Mill/BFP/CEP Vib. Monitoring system including Panel (800X800X2415) server, monitor and accessories	4	NO		6
1.11	Remote Gravimetric Feeder Panel (1200x600x2315)	12	NO		6
1.12	EWLI Local Panel (600X600X350)	4	NO		6
1.13	EWLI Remote Display unit (99X184X81)	4	NO		6
1.14	ERV Control Box (400x350X270)	8	NO		6
1.15	Furnace Temperature Probe Local Starter Box (600X600X300)	4	NO		6
1.16	Generator Instrumentation cabinet (1230X1060X2550)	2	NO		6
1.17	Generator system Annunciation cabinet (1000 X800X2200)	2	NO		6
1.18	Gas Analyser Cabinet (1200X800X2110)	2	NO		6
1.19	MAX Engineer Stations (EWS): (1 Set comprises of 1 No. CPU , Printer, accessories and 1 No. Monitor) (1500x750x740)	4	SET		9
1.20	Maxstorian Stations (EWS): (1 Set comprises of 2 No. CPU ,Printer, accessories and 1 No. Monitor) (1500x750x740)	2	SET		9
1.21	MAX operator Work Station (OWS) :computer consisting of CPU,Printer,Accessories and monitor)	12	SET		9
1.22	CRT Desk (800X1195X825)	8	NO		6
1.23	MAX Work Station (DeskTop): (01 No. each for Performance Calculation, Shift In-Charge, TSC, 02 nos LVS Station & 01 no SOE station)	10	NO		9
1.24	MAX Link Work Station : (01 Set comprises of 1 No. CPU, Printer, accessories and 01 No. Monitor) (1500x750x740)	2	SET		9
1.25	Printer of various types.(Colour laser A4, A3, B/W Mono laser A4, Colour Inkjet A4, DOT matrix)	1	SET		9
1.26	Furniture (consisting of 06 nos Printer tables, 09 nos computer tables & 20 nos chairs) per set	2	SET		6

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

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

SL NO	DESCRIPTION OF ITEM	QTY FOR BOTH UNITS	UNIT RATE (₹)	TOTAL AMOUNT (₹)	BILLING SCHEDULE REF.
1.27	Large Video Screen Control Station containing Video screen (1368x940x 2369)	4 NO			6
1.28	SWAS Wet Panel (3300x 2200x1400)	2 NO			6
1.29	SWAS Dry Panel (3600x2200x800)	2 NO			6
1.30	SWAS Chiller Panel (3040x1800x1350)	2 NO			6
1.31	SWAS Pimary Panel (BOILER) (1500x2000x600)	2 NO			6
1.32	SWAS Pimary Panel (TG) (600x2000x600)	2 NO			6
1.33	240V AC control supply cabinet	2 NO			6
1.34	UPS system including charger	1 SET			6
1.35	Battery for UPS	1 SET			6
1.36	Pump house MCC	1 SET			6
1.37	MOTOR Starter cabinet	1 SET			6
2.0	FIELD RACKS AND ENCLOSURES				
2.1	Transmitter Enclosers (LIE) (2000X1500X2300) -500 Kg	42 NO			6
2.2	Transmitter Racks (LIR) (1800X800X2000) -300Kg	70 NO			6
2.3	Local Gauge Board (LGB) Assembly for Feed Water & Sealing Cooling Water service for BFP.(2000x300x1800)	6 NO			6
2.4	Local Gauge Board (LGB) assembly for oil service of BFP (2200x300x1800)	6 NO			6
2.5	Local Gauge Board (LGB) Assembly for CEP (2000x300x1800)	2 NO			6
2.6	Local instrument rack (LIR) assembly for 3 BFPs Pressure transmitters.	2 NO			6
2.7	Local Instrument Rack (LIR) assembly for 3 BFPs to mount Differential Pressure Transmitters.	2 NO			6
2.8	Local Instrument Rack (LIR) assembly for CEP-A & B pumps to mount Pressure & diff.pressure Transmitters.	2 NO			6
3.0	FIELD INSTRUMENT				
3.1	Electronic Transmitters (Pr.,Diff. Pr., Flow, Level)	380 NO			7
3.2	Guided Wave Radar type level transmitters.	22 NO			7
3.3	UCB mounted instruments viz Digital Indicator/Recorder/Integrater/control station/controller etc.	140 NO			7
3.4	Flow Switch	16 NO			7
3.5	Flow meter/Rotameter/Flow Indicator	12 NO			7
3.6	Pressure Guage	480 NO			7
3.7	Differential Pressure Guage	16 NO			7
3.8	Temperature Guage	200 NO			7
3.9	Pressure Switch	190 NO			7
3.10	Limit Switch (for Burner Tilt Shear pin fail & other application)	168 NO			7
3.11	Differential Presure Switch	75 NO			7
3.12	RTD (PT - 100)	270 NO			7
3.13	Thermocouple with Thermowell- (K-Type, R-Type & T-Type)	228 NO			7
3.14	Level Switch (Conductivity Type for CRH Drain pot lv)	4 NO			7

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

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

SL NO	DESCRIPTION OF ITEM	QTY FOR BOTH UNITS	UNIT RATE (₹)	TOTAL AMOUNT (₹)	BILLING SCHEDULE REF.
3.15	Level Switch (Float Type/ Capacitance Type/Displacement Type)	30	NO		7
3.16	Condensing Pot consisting of 03 types (7.6mm thk, 12mm thk & 17.6mm thk).	142	NO		7
4.0	Machine Monitoring System-Loose items : (Station C&I area for HT drives & TSI system)				
4.1	Vibration sensor	328	NO		7
4.2	Proximity sensor	66	NO		7
4.3	Velocity Transducers	100	NO		7
4.4	Overall expansion (LVDT) Probe	16	NO		7
4.5	Speed Detectors	8	NO		7
4.6	Oxygen (O2) Analyser	8	NO		7
4.7	Flue Gas Analyser (SOx + NOx + CO2 + CO) Analyser - In Situ Type	2	NO		7
4.8	Dust / Smoke Density / Opacity Analyser	2	NO		7
4.9	Conductivity Analyser	24	NO		7
4.10	Dissolved Oxygen (DO) Analyser	6	NO		7
4.11	Hydrazine Analyser	2	NO		7
4.12	Sodium Analyser Multi Stream	2	NO		7
4.13	pH Analyser pHT	12	NO		7
4.14	Phosphate Analyser	2	NO		7
4.15	Silica Analyser Multi Stream	2	NO		7
4.16	Capacitance Type Level Probe with amplifier (for Seal Oil system & other appl)	26	NO		7
4.17	MOISTURE MONITORING SYSTEM (Containing Sensor and sample handling system cabinet (Size-1500 x 1000 x 500mm approx.)	4	NO		7
4.18	Miniature RTDs (thrust bearing)	48	NO		7
4.19	12 port Pr. Vessel with loose supplied electrodes for EWLI	4	NO		7
4.20	Positive displacement Flowmeter (consisting of Pulse amplifier, strainer, expander, reducer, mating flanges, cables and its remote sensing element)	4	NO		7
4.21	6 MM OD SS sheathed type K, MTMTCs of Route Length - 10-22 metre.	12	NO		7
4.22	Accoustic Transducer along with PRE-Fab cable	36	NO		7
4.23	Accoustic Wave Guard assembly	36	NO		7
4.24	Flame Scanner head Assembly	40	NO		7
4.25	Local Gun maintenance switch	24	NO		7
4.26	12 port pr. Vessel for EWLI	4	NO		7
5.0	Junction Boxes :				
5.1	Miniature JB for Flame Scanner	40	NO		3
5.2	HEA Exciter Box	24	NO		3
5.3	12 way	106	NO		3
5.4	24 way	200	NO		3
5.5	36 way	80	NO		3
5.6	48 way	54	NO		3
5.7	64 way	12	NO		3
5.8	72 way	10	NO		3
5.9	96 way	10	NO		3

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

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

SL NO	DESCRIPTION OF ITEM	QTY FOR BOTH UNITS	UNIT RATE (₹)	TOTAL AMOUNT (₹)	BILLING SCHEDULE REF.
5.10	MTM JUNCTION BOX- 24 WAY	50	NO		3
6.0	MISCELLANEOUS ITEMS				
6.1	Local Pneumatic Controller with mechanical transmitter for Seal Air Dynavane.	2	NO		7
6.2	Electro Pneumatic (E/P) Converter	98	NO		7
6.3	Air Filter Regulator - 1/4 inch	98	NO		7
6.4	Purge meter for Mill	20	NO		7
6.5	AFR For SADC System -1 inch	16	NO		7
6.6	1/4"SIZE TEFLON HOSE LENG.	128	NO		7
6.7	1"SIZE TEFLON HOSE LENG.	8	NO		7
7.0	STRUCTURAL STEEL (for items Sl.no. 7.1, 7.2 & 7.3 materials e.g. GI/SS tees, cross, socket, nipple, reducer, union etc. are to be supplied by the bidder within his quoted rate.)				
7.1	Fab. & erection of Air header for SADC Power cylinder with 1/2" to 2" GI/SS pipe, and valves etc. (1 I/L, 14 O/L, drain & vent valves).	10	NO		5
7.2	Fab. & erection of Air filter station for SADC Power cylinder with 1" GI/SS pipe, valves and air filter regulator	8	NO		5
7.3	Fab. & erection of dust collector / catch pot	24	NO		5
7.4	Fab. & erection of structural steel (Angle, Channel, flat, plate etc.)	40	MT		5
7.5	Fabrication & erection of canopy (structural matl. and GI/SS sheet will be provided by BHEL free of cost)	6	MT		5
8.0	Impulse Pipe :				
8.1	ASTM A 312 TP 316 1/2 " NB Sch 40S	2600	MTR		4
8.2	ASTM A106 GR C 1/2" NB SCH 80	3650	MTR		4
8.3	ASTM A106 Gr C 3/4 " NB Sch 80	4000	MTR		4
8.4	ASTM A106 Gr C 1/2 " NB SCH 160	1500	MTR		4
8.5	ASTM A335 P22 1/2 " NB XXS	1800	MTR		4
8.6	ASTM A312 TP 316 1/2 " Nb Sch 160S	1000	MTR		4
8.7	ASTM A106 Gr C 1 " NB Sch 80	50	MTR		4
8.8	1/2" Sch 80, CS impulse pipe	800	MTR		4
8.9	1" Sch 80, CS impulse pipe	1000	MTR		4
8.10	1/2" Sch 160, CS impulse pipe	500	MTR		4
8.11	3/4"Sch 80 CS Impulse Pipe, Matl.	600	MTR		4
8.12	Impulse pipe for Pr. Instruments CS 16 X2.6 (BFP - 600mtr, CEP-165 mtr.)	1500	MTR		4
8.13	3/4"Sch 80 CS Impulse Pipe,	600	MTR		4
8.14	GI Pipe NB15 X 3.25 (IS 1239 GAL)	1600	MTR		4
8.15	Pneumatic Copper Tubes up to 1/4" OD	4000	MTR		4
8.16	S.S.Pipe upto 3/4" OD	100	MTR		4
8.17	S.S. Tube upto 1/4" OD	100	MTR		4
8.18	Copper Tubes >1/4" mm & upto 12mm OD	1000	MTR		4
8.19	Valves of various types of size 1/4" to 1/2" (SS/CS/MS/Brass etc).	20	NO		4
9.0	Cables of different types:				
9.1	UTP cable for Max System	14000	MTR		2

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

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

SL NO	DESCRIPTION OF ITEM	QTY FOR BOTH UNITS	UNIT RATE (₹)	TOTAL AMOUNT (₹)	BILLING SCHEDULE REF.
9.2	Fibre optic cable with conduit -Only Laying, termination excluded.	4000 MTR			2
9.3	4Px 0.5 sqmm I&OA shielded unarmoured	1000 MTR			2
9.4	12Px 0.5sq.mm OA shielded unarmoured	800 MTR			2
9.5	24Px 0.5sq.mm OA shielded unarmoured	400 MTR			2
9.6	2Px 0.5sq.mm I&OA shielded armoured	10000 MTR			2
9.7	4Px 0.5sq.mm I&OA shielded armoured	113000 MTR			2
9.8	8Px 0.5sq.mm I&OA shielded armoured	37000 MTR			2
9.9	12Px 0.5sq.mm I&OA shielded armoured	20000 MTR			2
9.10	4Px 0.5sq.mm OA shielded armoured	152000 MTR			2
9.11	2Px 0.5sq.mm OA shielded armoured	42000 MTR			2
9.12	8Px 0.5sq.mm OA shielded armoured	33000 MTR			2
9.13	12Px 0.5sq.mm OA shielded armoured	14000 MTR			2
9.14	16Px 0.5sq.mm shielded armoured for EWLI	1000 MTR			2
9.15	20Px 0.5sq.mm I&OA shielded armoured	20000 MTR			2
9.16	10Px 0.6sq.mm PTFE for EWLI	120 MTR			2
9.17	2Px 1.31mm ² , 16 AWG K type I&OA shielded armoured	9000 MTR			2
9.18	4Px20 AWG K type I&OA shielded armoured	10000 MTR			2
9.19	6Px20 AWG K type I&OA shielded armoured	16000 MTR			2
9.20	2Px16 AWG R type I&OA shielded armoured	1000 MTR			2
9.21	2Px20 AWG R type I&OA shielded armoured	2400 MTR			2
9.22	Flame Scanner Shielded Cable	6400 MTR			2
9.23	2P X 0.5 SQ.mm. O/A Shielded Cable	7000 MTR			2
9.24	4P X 0.5 SQ.mm. O/A Shielded Cable	2000 MTR			2
9.25	8P X 0.5 SQ.mm. O/A Shielded Cable	4000 MTR			2
9.26	4Px 0.5 SQ.mm ATC Conductor, PVC Insulated, Armoured, Cable	3000 MTR			2
9.27	8P x 0.5 SQ.mm ATC Conductor, PVC Insulated Armoured Cable	3000 MTR			2
9.28	2Px 0.5 SQ.mm ATC Conductor, PVC Insulated, Armoured Cable	600 MTR			2
9.29	2CX2.5 SQ.mm Copper Power Cable	32000 MTR			2
9.30	3CX2.5 SQ.mm Copper Power Cable	20000 MTR			2
9.31	2CX2.5 SQ.mm Control Cable	500 MTR			2
9.32	3CX2.5 SQ.mm Control Cable	2400 MTR			2
9.33	5C X2.5 SQ.mm Control Cable	39000 MTR			2
9.34	7CX2.5 SQ.mm Control Cable	6000 MTR			2
9.35	9CX2.5 SQ.mm Control Cable	10000 MTR			2
9.36	9CX2.5 SQ.mm Control Cable	19000 MTR			2
9.37	2P 1.5 sq.mm shielded cable	1000 MTR			2
9.38	19 core 2.5 sq.mm control cable	2400 MTR			2
9.39	XLPE cable 1P, 2P,3P etc x1.5 mm ²	400 MTR			2
9.40	Co-Axial Cable alongwith coduit for SCADA interface	400 MTR			2
10.0	Cable Trays & Accessories:				
10.1	GI CABLE TRAY – 50 mm Width	2000 MTR			1
10.2	GI CABLE TRAY – 100 mm Width	3000 MTR			1
10.3	GI CABLE TRAY – 150 mm Width	2500 MTR			1
10.4	GI CABLE TRAY - 300 mm Width	2000 MTR			1
10.5	Supply of GI Flat of 75X 6/8 mm	1 MT			12
10.6	Supply of GI Flat of 50X6 mm	1 MT			12

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

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

SL NO	DESCRIPTION OF ITEM	QTY FOR BOTH UNITS	UNIT RATE (₹)	TOTAL AMOUNT (₹)	BILLING SCHEDULE REF.
10.7	Supply of GI Flat of 30X5 mm	1 MT			12
10.8	Supply of GI Flat of 25X3 mm	1 MT			12
10.9	Supply of Double Compression cable gland upto 10mm size of Commet or equivalent make	50 NO			12
10.10	Supply of Double Compression cable gland 1/2 inch size of Commet or equivalent make	100 NO			12
10.11	Supply of Double Compression cable gland 3/4inch size of Commet or equivalent make	100 NO			12
10.12	Supply of Double Compression cable gland 1 inch size of Commet or equivalent make	50 NO			12
11.0	CALIBRATION/ COMISSIONING (Erection excluded)				
11.1	SADC power cylinders	112 NO			10
11.2	Burner tilt Power cylinder	8 NO			10
11.3	HEA power cylinder	24 NO			10
11.4	Power cylinder for scoop	10 NO			10
11.5	Gravimetric Feeder with local control panel with Feeder calibration.	12 NO			10
11.6	Power cylinder (on-off type)	110 NO			10
11.7	Power cylinder (regulating type)	54 NO			10
11.8	Control valves (ON-OFF)	46 NO			8
11.9	Open/ Close type cont valve (pneumatic) for fuel oil station at AB, CD & EF elevation.	72 NO			8
11.10	Control valves (Regulating)	100 NO			8
11.11	Extraction NRV/Spray water control valve	10 NO			8
11.12	Gland steam control valves.	4 NO			8
11.13	HPBP Pr. & temp. control valve	8 NO			8
11.14	HPBP spray block valve	2 NO			8
11.15	LP Bypass spray Control valve with Feedback Transmitter	4 NO			8
11.16	Governing System Control Rack (erection is excluded, rate to be quoted only for calibration and commissioning of instruments)	2 NO			8
11.17	LP Bypass control rack (erection is excluded, rate to be quoted only for calibration and commissioning of instruments)	2 NO			8
11.18	Motorised Temperature Control Valve with actuator NB250 VAR-02 for Generator cold gas.	2 NO			8
11.19	Vacuum Breaker Valve with pneumatic actuator.	2 NO			8
11.20	Hydrogen Gas dyier panel	2 NO			8
11.21	Oil Purification Unit.	2 NO			8
11.22	Motorised Three way turbine lube oil temp control valve.	2 NO			8
11.23	Pressure Limit valve.	2 NO			8
11.24	Generator Stroboscope	2 NO			8
12.0	POWER CYLINDERS				
12.1	Power Cylinder for ID fan inlet damper	4 NO			11
12.2	Power Cylinder for FD fan inlet damper	4 NO			11
12.3	Power Cylinder for PA fan inlet damper	4 NO			11
12.4	Power Cylinder for Hot air damper	12 NO			11

VOLUME-III A
PRICE SCHEDULE, REV-1

Job: Erection, Testing, Commissioning of Control & Instrumentation work of Station Boiler, TG & their auxiliaries etc. for 2 X 270 MW, Phase-I, (UNIT # 1&2) Abhijeet Infrastructure Limited, Chandwa, Jharkhand.

TENDER NO - PSER:SCT:ABJ-I1319:12

SL NO	DESCRIPTION OF ITEM	QTY FOR BOTH UNITS	UNIT RATE (₹)	TOTAL AMOUNT (₹)	BILLING SCHEDULE REF.
12.5	Power Cylinder for Cold air damper	12	NO		11
12.6	Removal, calibration, re-mounting and commissioning of instruments for Skid. Each skid will have minimum of 05 no. instruments e.g. PG/PS/TG/DPI /DPS/TS/RPM meter with probe/LS/LG /FS/FI etc. Dressing of capillary & cables if any, repair of Cu-tube/impulse pipe, if any, changing of terminals of JB. if any, is also included.	10	NO		10
13.0	PG TEST ITEMS :				
13.1	1/2" Impulse Pipe	1600	MTR		4
13.2	Compensating Cable (2C, Core size upto 2.5 sqmm) laying & termination	2700	MTR		2
13.3	2C, Core size upto 2.5 sqmm cable laying & termination	6000	MTR		2
13.4	4C, Core size upto 2.5 sqmm cable laying & termination	6000	MTR		2
13.5	Pre-fab cable from Data logger to computer	100	MTR		2
13.6	Junction Box	160	NO		3
13.7	Thermocouple	90	NO		7
13.8	Pr. / vacuum / DP Transmitters	140	NO		7
13.9	Data logger	2	NO		7
13.10	Manometer	20	NO		7
13.11	Thermowell	200	NO		7
13.12	PRT (Pt. Resistance thermometer)	180	NO		7
13.13	Barometer	2	NO		7
13.14	Power meter / transducer	20	NO		7
14.0	Installation of Electronic earth pit as per the instruction of BHEL engineer to the tune of 0.5 ohm fixing rod ,riser with necessary ingredients	1	NO		1
GRAND TOTAL PRICE					

NOTE:

- 1.0** Insulated copper lugs of std quality, Numbered ferrules by machine printed ,Tags ,ties are to be supplied by the Bidder at his cost. Gland will be supplied by BHEL free of Cost
- 2.0** For item under SI.no.9.2 bidder has to do the laying only, termination is excluded.
- 3.0** Bidder's quoted price shall be exclusive of service tax