

TENDER SPECIFICATION

NO. PW/NGP/PUR/UKAI-CLE/459

FOR

COLLECTION OF MATERIALS FROM STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, DISMANTLING THE EXISTING COMPONENTS, RETURNING OF DISMANTLED MATERIALS TO BHEL/CLIENT'S YARD, SERVICING OF EXISTING EQUIPMENT, ERECTION OF NEW COMPONENTS, RENOVATION AND MODERNIZATION, TESTING, ASSISTANCE FOR COMMISSIONING AND HANDING OVER OF ELECTRICAL AND C&I PACKAGE FOR 1x120 MW UNIT# 1

AT

UKAI TPS,
P.O UKAI DAM
GUJARAT- 394 680

PART –II : Price Bid (Revision-01 dated 19/10/2006)



BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR - WESTERN REGION

345, KINGS WAY - NAGPUR 440 001

BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR - WESTERN REGION

345, KINGS WAY - NAGPUR 440 001

TENDER SPECIFICATION NO. PW/NGP/PUR/UKAI-CLE/459

NAME OF THE WORK:

COLLECTION OF MATERIALS FROM STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, DISMANTLING THE EXISTING COMPONENTS, RETURNING OF DISMANTLED MATERIALS TO BHEL/CLIENT'S YARD, SERVICING OF EXISTING EQUIPMENT, ERECTION OF NEW COMPONENTS, RENOVATION AND MODERNIZATION, TESTING, COMMISSIONING, AND HANDING OVER OF ELECTRICAL AND C&I PACKAGE FOR 1X120 MW UNIT# 1

AT

UNIT-1

UKAI TPS,

UKAI,

P.O UKAI DAM – 394 680

EARNEST MONEY DEPOSIT: Please see Special Conditions of Contract.

LAST DATE FOR TENDER SUBMISSION Please obtain updated information from web page
"http://www.bhel.com" (Tender Notifications (View
Corrigendums).

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING PART-I AND PART- II
(PRICE BID), ARE ISSUED TO:

M/s.

.....

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

BIDDER SHALL NOTE THAT THEIR OFFER WILL BE CONSIDERED SUBJECT TO
THE APPROVAL OF BHEL'S CUSTOMER.

For Bharat Heavy Electricals Limited

Dy. General Manager (Purchase)

Place: Nagpur

Date:

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 1 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
A-1	Control Panel (approx L1000 X B1000 X H2500, 400Kg) – single panels (includes one interposing relay panel)	5	Nos		
A-2	Control Panel (approx L1001 to 1500 X B1000 X H2500, 800 Kg) - suit of two panels	9	Nos		
A-3	Control Panel (approx L1501 to 2250 X B1000 X H2500, 1200 Kg) - suit of three panels	1	No		
A-4	Back up Control panel (Two shipping sections each W2500 x D2000 x H2500 mm approx)	1	Set		
A-5	Master and Slave Clock system (One master clock and four numbers of slave clocks common for unit #1 and Unit #2). Panel dimension 900 x 800x 2415 mm with 3 kms of cabling. (Commissioning in Vendor's scope)	1	Set		
A-6	UPS, ACDB and Battery (Each set comprising of 5 UPS Panels + 2 ACDB Panels, total 7 panels. Each panel dimension is 1000 x 800 x 2415 mm. This also includes four sets of battery each set comprising of 180 / 192 cells, SMF VRLA battery arranged in mild steel rack of size 1000 x 800 x 1500 mm. (commissioning in vendor's scope)	1	Sets		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 2 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
A-7	Erection and commissioning of Gravimetric feeder remote panel (in panel room) and commissioning of feeder local electronics	4	Sets		
A-8	Alarm Annunciation System (Comprising of suite of 2 panels of suite size 1600mm x 800 x 2415 mm)	1	Set		
A-9	DC motor starter box for scanner fan	1	No		
A-10	Hydrogen Purity analyzer	1	No		
A-11	Steam and Water Analysis System (SWAS) Sample handling system consisting of wet rack, dry panel and Analysers (Conductivity – 7, Dissolved Oxygen – 1, pH – 5 and Silica analyser – 2 numbers)	1	Set		
A-12	Furnace Temperature probe	1	Nos		
A-13	AC Control Supply Panel, DC Control Supply Panel (about 800 Kgs each)	2	Nos		
A-14	DCDB approximately (600x600x2300)	1	No		
B-1	Direct Water Level Gauge	2	Sets		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 3 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
B-2	Solenoid valves (3 way, AC/DC, 1/4", 1/2", 1", NPT/BSP, single/dual coil)	15	Nos		
B-3	HEA Exciter system	12	Sets		
B-4	Flame Scanner Head Assembly	12	Nos		
B-5	Air filter regulators / Lubricators (1/2", 1", 0-6KG, 0-10 KG)	35	Nos		
B-7	Speed Regulators / Air lock valves in oil gun corner rack	12	Nos		
B-8	MAX Engineering / operator / storian / LAN / WAN / Shift in charge / stn in charge / gateway / interface PC / HART etc., PC/Server Station with ASCII Keyboard, Mouse & 19" Colour Monitor, individual UPS, Ethernet switch, cabling etc with Work Station Desk (Operator and engineering)	8	Sets		
B-9	Printers (80/132 col Dot Matrix, A3 Inkjet, A3 Laserjet, etc)	5	Sets		
B-10	Flue gas analyzer system comprising of Sample handling system, Sox, Nox, CO and SPM analyzers	1	Set		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 4 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
B-11	O2 (OXYGEN) Analyzer	2	Nos		
C-1	Console inserts (to be mounted on Backup desk)	1	Set		
C-2	Bar Graph Indicators (Single, Dual Channel)	40	Nos		
C-3	Digital indicators	4	Nos		
C-4	Recorder 18 Channel	1	Nos		
C-5	Recorder 3 /6/12 channel (new or relocation)	40	Nos		
C-6	Speed switch / Speed detector	4	Nos		
C-7	Moisture Sensor probe and dew point monitor	1	Set		
C-8	Rotor Earth fault Detector	1	Nos		
C-9	Pressure Switch / DP Switch / DP indicating switch/ Pressure gauge/ DP Gauge	230	Nos		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 5 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
C-10	Temperature Switch / Thermostat / Temperature Gauge	100	Nos		
C-11	Float type/ Electronic Level Switch	30	Nos		
C-12	Electronic Level Transmitter (Displacer Type)	3	Nos		
C-13	Level Indicator / Level Gauge	6	Nos		
C-14	Flow indicator / Flow Gauge	6	Nos		
C-15	Pressure / DP / Flow (DP type) / Level - Transmitter	200	Nos		
C-16	Flow Transmitter (Pulse / mass flow / target / coriolis type) including flanges	3	Nos		
C-17	Thermocouple / RTDs with thermowell (all types) along with converters wherever applicable	200	Nos		
C-18	MTM Thermocouple	25	Nos		
C-19	I/P converters	50	Nos		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 6 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
C-20	Pneumatic Pressure controller with accessories	1	Nos		
C-21	Pneumatic Temperature controller with accessories	1	Nos		
D-1	Fan /Pulverizer/ pump Lube oil skid	12	Sets		
D-2	Electrical drives / actuators (regulating / On off type)	70	Nos		
D-3	Pneumatic drives: (Valve, damper)	69	Nos		
D-4	Commissioning of Hydraulic actuators	2	Nos		
D-5	ERV Controller	2	Nos		
D-6	Corner valve/ Trip valves commissioning	40	Nos		
D-7	Solenoid Valves	30	Nos		
D-8	Only healthiness checking of embedded RTD / T/C	100	Nos		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 7 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
D-9	Limit Switches (checking and adjusting only).	25	Nos		
D-10	SADC Power cylinders (For these, erection of cylinders is also included although separate payment is not shown for erection in terms of payment. Erection and calibration charges to be within quoted rates)	56	Nos		
E-1	GI earthing wire	1000	Meters		
E-2	GI Pipe (1/2", 1") Heavy grade	100	Meters		
E-3	GI Pipe (1.5 ", 2")	50	Meters		
E-4	Copper tube 6mm/8mm / 1/4" (Sheathed / bare)	2500	Meters		
E-5	Perforated / ladder type cable tray and accessories (with or without cover) 50mm / 100mm / 150 mm	4000	Meters		
E-6	Perforated / ladder type cable tray and accessories (with or without cover) 200, 250, 300, 350, 450mm	4000	Meters		
E-7	Instrument, Control and Compensating Cable upto 8P/16C armoured / Un-armoured 0.5/0.75/1.5/2.5 SQ.MM.	40000	Meters		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 8 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
E-8	Instrument, Control and Compensating Cable more than 8P/16C upto 32P/64C 0.5/0.75/1.5/2.5 SQ.MM.	20000	Meters		
E-9	Power Cable 3c / 4c up to 6sqmm	5000	Meters		
E-10	Power Cable 3c / 4c greater than 6sqmm, less than 25sqmm	3000	Meters		
E-11	Power Cable 3c 185sqmm	3000	Meters		
E-12	Network UTP Cables (special termination using UTP connectors involved)	250	Meters		
E-13	MS Flat 50 x 6 mm	50	Meters		
F-1	Junction boxes	125	Nos		
F-2	CS/AS/SS Impulse Pipe 1/2" Sch 40/80/160	2200	Meters		
F-3	CS/AS Impulse Pipe ¾", 1.0" Sch 40/80/160	800	Meters		
F-4	Plant Control Desk / CRT desk	1	Set		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur**Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)**

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 9 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
F-5	Computer furniture for all Servers, PCs, Printers	1	Set		
F-6	Structural steel for fabrication	5	Tons		
F-7	Lump sum charges for carrying out tests as per clause 4.23.9 of Technical specifications	1	Set		
F-8	Drilling hole in the floor, concrete slab etc for installation of panels with minimum opening of 1 square feet.	200	Sq. ft.		
G-1	Removal of existing panels including removal of instruments, consoles, internal wiring, cabling, accessories etc. ,identification, deglanding of cables, and handing over to BHEL/ customer at their stores.	40	Nos		
G-2	Removal of all size of cables up to 32 pair / 64C. The job includes removal from terminals, de-glanding of cables, identification, re-rolling and handing over to BHEL/ customer at their stores.	25000	Mtrs		
G-3	Removal of cable trays size upto 750 mm perforated / ladder type, along with or without cover and accessories, handing over to BHEL/ customer at their stores.	2000	Mtrs		

Date**Signature & Official Seal of Bidder**

Bharat Heavy Electricals Limited: PSWR: Nagpur

Tender Specification No. BHE/PW/PUR/UKAI-CLE/459 Part-II: Price Bid (Revision-01 dated 19/10/2006)

Schedule of Rates and Quantities for collection from BHEL Stores, local transportation, Erection, Testing, Calibration, Assistance for Commissioning Assistance and Handing Over IN RESPECT OF items 'A' to 'F'. The Schedule of Rates and Quantities under Item 'G' are for Dismantling of existing items, identification, transportation and handing over at BHEL/Customer stores. (Page 10 of 10)

SN	DESCRIPTION	TOTAL QTY	UOM	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
G-4	Removal of existing instruments, junction boxes, identification of the same and handing over to BHEL/ customer at their stores.	400	Nos		
G-5	Removal, cutting of steel supports for JBs, instruments, cable trays, impulse pipes etc, and handing over to BHEL/ customer at their stores.	5	MTs		
G-6	Cutting and removal of impulse pipes, conduits, air line pipes of various sizes, identification and handing over to BHEL/ customer at their stores.	1500	Mtrs		
G-7	Removal of copper tube up to 12mm OD, identification and handing over to BHEL/ customer at their stores.	4000	Mtrs		
Grand total in figures (Rs)					
Grand Total in words : Rupees					

Date

Signature & Official Seal of Bidder