

## TENDER SPECIFICATION

S N	Tender Specification Number	Unit Number & Project
1	BHE/PW/PUR/DHJOI-MECH (BLOCK I)/1031	UB1, HRSG 2 & 4 , STG1 and GT/GTG 2 & 4 (Block I)
2	BHE/PW/PUR/DHJOI-MECH (BLOCK II)/1032	UB2, HRSG 1 & 3, STG2 and GT/GTG 1 & 3 (Block II)

RECEIPT/COLLECTION/LOADING/UNLOADING/TRANSPORTATION OF MATERIALS FROM BHEL/CLIENT'S STORES/STORAGE YARD TO SITE OF WORK, ERECTION, TESTING, COMMISSIONING, SUPPLY OF PAINTS/PRIMER AND APPLICATION OF PAINTS FOR FINAL PAINTING AND HANDING OVER OF ONE UNIT OF CAPACITY 220 TPH UTILITY BOILER (UB) + 2 UNITS EACH OF 110 TPH HEAT RECOVERY STEAM GENERATORS (HRSG) ALONG WITH THERE AUXILIARIES, STEEL STACK WITH COMPLETE PLATFORMS ETC INCLUDING ELECTRICAL WORK OF STACK, 2 UNITS EACH OF Fr6 B GAS TURBINE, GAS TURBINE GENERATOR SETS & RELATED AUXILIARIES, BYPASS-STACK, BALANCE OF PLANT EQUIPMENTS / SYSTEMS WITH RELATED AUXILIARIES, CONDENSER WITH R.E. JOINTS, STEAM TURBINE-ONE UNIT, TURBO-GENERATOR AND RESPECTIVE ASSOCIATED AUXILIARIES, POWER CYCLE PUMPS INCLUDING CW PUMPS, HEAT EXCHANGERS, INTEGRAL PIPING, BOUGHT OUT ITEMS, BALANCE OF PLANTS EQUIPMENTS / PACKAGES LIKE MISC. PUMPS, MISC. CRANES AND HOISTS, TANKS & VESSELS ETC., APPLICATION OF THERMAL INSULATION OF UB AND HRSG WITH AUXILIARIES, STEEL STACK, AND APPLICATION OF THERMAL INSULATION OF EQUIPMENTS/PIPING/ & VESSELS, PIPING WITH VALVES & FITTINGS INCLUDING GAS TURBINE AND STEAM TURBINE SET EQUIPMENTS – HEATERS, DE-AERATOR, TANKS, VESSELS & PIPING ETC FOR OPaL (ONGC PETRO ADDITIONS LIMITED) STEAM AND POWER GENERATION SYSTEM PACKAGE FOR DAHEJ PETROCHEMICAL COMPLEX, (BLOCK I) UB1, HRSG 2&4, STG1 AND GT/GTG 2&4, (BLOCK II) UB2, HRSG 1&3 AND STG2, GT/GTG 1&3.

AT

2X220 TPH UB + 2X30MW STG + 4XFr6 B GT + 4X110 TPH HRSG  
AT ONGC PETRO ADDITIONS LIMITED, SEZ, DAHEJ GUJARAT

### PRICE BID - VOLUME- II

TENDER SPECIFICATIONS CONSISTS OF:

- Notice Inviting Tender
- Volume 1 A - Technical Conditions of Contract,
- Volume 1 B - Special conditions of Contract,
- Volume 1 C - General conditions of Contract
- Volume 1 D - Forms & Procedures



**Bharat Heavy Electricals Limited**  
(A Government of India Undertaking)  
Power Sector - Western Region  
345-Kingsway, Nagpur-440001

## TENDER SPECIFICATION ISSUE DETAILS

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1	BHE/PW/PUR/DHJOI-MECH (BLOCK I)/1031	UB1, HRSG 2 & 4 , STG1 and GT/GTG 2 & 4 (Block I)
2	BHE/PW/PUR/DHJOI-MECH (BLOCK II)/1032	UB2, HRSG 1 & 3, STG2 and GT/GTG 1 & 3 (Block II)

RECEIPT/COLLECTION/LOADING/UNLOADING/TRANSPORTATION OF MATERIALS FROM BHEL/CLIENT'S STORES/STORAGE YARD TO SITE OF WORK, ERECTION, TESTING, COMMISSIONING, SUPPLY OF PAINTS/PRIMER AND APPLICATION OF PAINTS FOR FINAL PAINTING AND HANDING OVER OF ONE UNIT OF CAPACITY 220 TPH UTILITY BOILER (UB) + 2 UNITS EACH OF 110 TPH HEAT RECOVERY STEAM GENERATORS (HRSG) ALONG WITH THERE AUXILIARIES, STEEL STACK WITH COMPLETE PLATFORMS ETC INCLUDING ELECTRICAL WORK OF STACK, 2 UNITS EACH OF Fr6 B GAS TURBINE, GAS TURBINE GENERATOR SETS & RELATED AUXILIARIES, BYPASS-STACK, BALANCE OF PLANT EQUIPMENTS / SYSTEMS WITH RELATED AUXILIARIES, CONDENSER WITH R.E. JOINTS, STEAM TURBINE-ONE UNIT, TURBO-GENERATOR AND RESPECTIVE ASSOCIATED AUXILIARIES, POWER CYCLE PUMPS INCLUDING CW PUMPS, HEAT EXCHANGERS, INTEGRAL PIPING, BOUGHT OUT ITEMS, BALANCE OF PLANTS EQUIPMENTS / PACKAGES LIKE MISC. PUMPS, MISC. CRANES AND HOISTS, TANKS & VESSELS ETC., APPLICATION OF THERMAL INSULATION OF UB AND HRSG WITH AUXILIARIES, STEEL STACK, AND APPLICATION OF THERMAL INSULATION OF EQUIPMENTS/PIPING/ & VESSELS, PIPING WITH VALVES & FITTINGS INCLUDING GAS TURBINE AND STEAM TURBINE SET EQUIPMENTS – HEATERS, DE-AERATOR, TANKS, VESSELS & PIPING ETC FOR OPaL (ONGC PETRO ADDITIONS LIMITED) STEAM AND POWER GENERATION SYSTEM PACKAGE FOR DAHEJ PETROCHEMICAL COMPLEX, (BLOCK I) UB1, HRSG 2&4, STG1 AND GT/GTG 2&4, (BLOCK II) UB2, HRSG 1&3, STG2 AND GT/GTG 1&3.

**AT**

**2X30MW STG + 2X220 TPH UB + 4XFr6 B GT + 4X110 TPH HRSG  
AT ONGC PETRO ADDITIONS LIMITED, SEZ, DAHEJ GUJARAT**

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender  
LAST DATE FOR                      Refer Notice Inviting Tender  
TENDER SUBMISSION                      .

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING VOLUME-I AND VOLUME- II ARE ISSUED TO:

M/s. ....

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PLEASE NOTE:  
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

DY. GENERAL MANAGER (Purchase)

Place: Nagpur

Date :

## IMPORTANT INFORMATION

**This tender is for 6 Units of Steam Generators (2 Units of 220 TPH Utility Boiler and 4 Units of 110 TPH HRSG) AND 6 Units of TGs (2 Units of STG and 4 Units of GTG), which is divided into 2 Blocks. Block – I comprises of (UB # 1, HRSG 2 & 4, STG # 1, GTG 2 & 4) and Block – II comprises of (UB # 2, HRSG 1 & 3, STG # 2, GTG 1 & 3).**

1. Tender specification (Volume I) is common for both the Blocks.
2. Both the BLOCKS shall be awarded to separate agencies.
3. Scope of work for Both the Blocks are identical except additional 'Common Fuel Oil System/Equipments (320 MT)' included in the scope of Block I agency
4. Rates for E & C of Steam Generators in ONE BLOCK (Part A of Price Bid) and E & C of 3 Units of TGs including Auxl (Part B of price Bid specification) has been invited in Volume II price bid specification. **Lumpsum price for the 'Common Fuel Oil System/Equipments (320 MT)' shall be 8.5 % of the Lumpsum price quoted by the bidder for E & C of TGs in SI No 1 of Part B of price bid specification.**
5. Bidders shall not quote any other rate for the 'Common Fuel Oil System/Equipments (320 MT)'.
6. Evaluation of Price Bid to arrive at the relative standing of the bidders (i.e L-1, L-2 etc) shall be based on the sum total of the prices quoted for Part A and Part B of price bid specification.
7. L-1 bidder shall be considered for award of BLOCK 1 (**UB # 1, HRSG 2 & 4, STG # 1, GTG 2 & 4**).
8. For award of BLOCK 2 (**UB # 2, HRSG 1 & 3, STG # 2, GTG 1 & 3**), next bidder in the order of their price competitiveness ( i.e L-2, then L-3 and hence forth) shall be given an option to match their unit rate/price, with the Awarded/finalised rate/price of BLOCK I. However scope of work and the award value of Block II shall not include the 'Common Fuel Oil System/Equipments' which is in the scope of Block I.
9. In case none of the bidders agree to match the Awarded per unit rate of BLOCK I, then BHEL may consider awarding the BLOCK 2 (**UB # 2, HRSG 1 & 3, STG # 2, GTG 1 & 3**) to L-1 bidder or opt any other suitable method to finalize BLOCK 2 (**UB # 2, HRSG 1 & 3, STG # 2, GTG 1 & 3**)

**BHEL-PSWR-NAGPUR**

**VOLUME-II PRICE BID FOR ONE BLOCK**

**T.S.NO: BHE/PW/PUR/DHJOI-MECH (BLOCK I)/1031 & BHE/PW/PUR/DHJOI-MECH (BLOCK II)/1032**

**PART (A) : PRICE SCHEDULE FOR ONE UNIT OF UTILITY BOILER AND 2 UNIT's OF HRSG's FOR EACH BLOCK**

SL.NO	Contract (Main Package) - UBs, HRSGs	Rate schedule Identifier	QTY	UNIT	RATE PER UNIT (Rs) (In Figures)	RATE PER UNIT (Rs) (In Words)	TOTAL AMOUNT	PGMAs covered
1	Boiler & HRSG's	Structure	2159	MT				08, 09, 35, 36, 37, 38, 39, 41, 97
2	Boiler & HRSG's	Pressure Parts (Incl. Heat Transfer Module of HRSG)	1522	MT				04, HL, 05, 06, 07(part), 10, 11, 12, 18, 19, 20, 21, 24, 42, 43, 81, 33, 08,
3	Boiler & HRSG's	Non Pressure Parts	499	MT				07(part), 18, 19, 24, 28, 30, 31, 32, 41, 42, 43, 45, 48, 57, 81, HL, 80
4	Rotating M/C of Boiler & HRSG's	Rotating Machines (FD/GR Fans etc and aux.), Handling Equipments of Rotating Machines	166	MT				99, 50, 53, 56
5	Steel Stack of Boiler & HRSG's	Chimney in Shell/Sections, Foundation parts/Materials, Platfoms, Ladders etc and Painting trolley etc.	780	MT				87
7	Integral Piping of Boiler & HRSG's	Integral piping with Valves & fittings, Tanks and Vessels etc.	34	MT				12, 19, 80, 81
13	Insulation of Boiler & HRSG's, TG & GT's Aux.	Insulation/Wool Mattress	95	MT				33, 81
14	Insulation of Boiler & HRSG's, TG & GT's Aux.	Pourable and Castable	61	MT				33

DATE

SIGNATURE OF BIDDER

**BHEL-PSWR-NAGPUR**

**VOLUME-II PRICE BID FOR ONE BLOCK**

**T.S.NO: BHE/PW/PUR/DHJOI-MECH (BLOCK I)/1031 & BHE/PW/PUR/DHJOI-MECH (BLOCK II)/1032**

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<b>PART (A) : PRICE SCHEDULE FOR ONE UNIT OF UTILITY BOILER AND 2 UNIT's OF HRSG's FOR EACH BLOCK</b>								
<b>SL.NO</b>	<b>Contract (Main Package) - UBs, HRSGs</b>	<b>Rate schedule Identifier</b>	<b>QTY</b>	<b>UNIT</b>	<b>RATE PER UNIT (Rs) (In Figures)</b>	<b>RATE PER UNIT (Rs) (In Words)</b>	<b>TOTAL AMOUNT</b>	<b>PGMAs covered</b>
15	Insulation of Boiler & HRSG's, TG & GT's Aux.	Iron parts/Anciliary materials	27	MT				32, 37
16	Insulation of Boiler & HRSG's, TG & GT's Aux.	Aluminium Cladding Sheets	59	MT				32, 28, 37
<b>Grand Total Amount of PART A (Figures)</b>							Rs	
<b>Grand Total Amount of PART A (In Words)</b>				RUPEES.				

DATE

SIGNATURE OF BIDDER

**BHEL-PSWR-NAGPUR**

**VOLUME-II PRICE BID FOR ONE BLOCK**

**T.S.NO: BHE/PW/PUR/DHJOI-MECH (BLOCK I)/1031 & BHE/PW/PUR/DHJOI-MECH (BLOCK II)/1032**

<b>PART (B) : PRICE SCHEDULE FOR ONE UNIT OF STEAM TURBINE AND TWO UNITS OF GT/GTG's FOR EACH BLOCK</b>				
<b>PRICE SCHEDULE FOR ONE BLOCK (1 SET OF STG AND TWO SETS OF GT/GTG's)</b>				
<b>SN</b>	<b>DESCRIPTION</b>	<b>UOM</b>	<b>Lumpsum Price Rs (In figures)</b>	<b>Lumpsum Price Rs (In Words)</b>
1.0	ERECTION, TESTING, COMMISSIONING, WELDING WITH RADIOGRAPHY/NDE/NDT, SUPPLY OF PAINTS/PRIMER AND APPLICATION OF PAINTS AND FINAL PAINTING ETC OF GAS TURBINE - GENERATOR SETS WITH AUX. (TWO STES), STEAM TURBINE & STG WITH AUX. (ONE SET), INTEGRAL PIPING, SURFACE CONDENSER WITH AUX., PUMPS & AUX. AND OTHER RELATED EQUIPNMENTS & AUXILIARIES ETC.AS AS PER SCOPE OF WORK AND BOQ GIVEN IN TENDER SPECIFICATION, AS SL NO. "(AA)" OF ANNEXURE-I OF TENDER SPECIFICATION	LUMPSUM PRICE		
2.0	ERECTION AND COMMISSIONING OF COMMON FUEL SYSTEM/EQUEPMENTS/ITEMS, SKIDS, PUMPS, LP HEATER, LP DOSING SYSTEM ETC. AS PER SCOPE OF WORK AND BOQ GIVEN IN TENDER SPECIFICATION -TO BE EXECUTED BY BLOCK-I AGENCY) AS SL NO. "(BB)" OF ANNEXURE-I OF TENDER SPECIFICATION	LUMPSUM PRICE	<b>8.5 % of the Price Quoted in SI No 1 above</b>  = Rs .....	<b>8.5 % of the Price Quoted in SI No 1 above</b>  Rupees ..... .....
<b>Grand Total Amount of PART B (Figures)</b>				
<b>Grand Total Amount of Part B (In Words)</b>				
<b>TOTAL AMOUNT OF RATE SCHEDULE IN WORDS: Rupees</b>				
<b>NOTE:</b>				
1. Bidder shall not quote separate Lumpsum price for SI No 2.0. Same shall be 8.5 % of Lumpsum price quoted for SI No 1.0. If found otherwise, price bid of the bidder is liable to be rejected or Lupsum prices of SI No 2 shall be recalculated by BHEL as 8.5 % of price quoted by the bidder for SI No 1 or BHEL shall opt any other option as deemed fit at the sole discretion of BHEL. 2. PAYMENT FOR TG/GENERATOR INTEGRAL PIPING SHALL BE ON PRO RATA BASIS ON A PER MT RATE.				

DATE

SIGNATURE OF BIDDER

**BHEL-PSWR-NAGPUR**

**VOLUME-II PRICE BID FOR ONE BLOCK**

**T.S.NO: BHE/PW/PUR/DHJOI-MECH (BLOCK I)/1031 & BHE/PW/PUR/DHJOI-MECH (BLOCK II)/1032**

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<b>GRAND TOTAL PRICE FOR ENTIRE SCOPE OF WORK (BLOCK I)</b>	
<b>Grand Total Amount of PART A (Figures)</b>	
<b>Grand Total Amount of PART B (Figures)</b>	
<b>TOTAL PRICE FOR ENTIRE SCOPE OF WORK (PART A + PART B) in Rs (Figures)</b>	
<b>TOTAL PRICE FOR ENTIRE SCOPE OF WORK (PART A + PART B) in Rs (Words)</b>	<b>Rupees</b>

DATE

SIGNATURE OF BIDDER