



Bharat Heavy Electricals Limited **(A Govt. Of India Undertaking)**

Power Sector, Eastern Region
BHEL Bhawan, Plot No. DJ-9/1 , Sector- II ,
Salt Lake City , Kolkata , WEST BENGAL, INDIA
Phone : 033-23216130-31, FAX : 033-23211960

NOTICE INVITING TENDER

Tender No. PSER: PUR: KGT-S151:14 :(ENQ:14:PP:0015:PUR:40) DATE 20/06/2014.

LAST DATE OF SUBMISSION OF COMPLETE OFFER: 11/07/2014 (UP TO 15:00 HRS.).

(Techno-commercial offer shall be opened on 11/07/2014 at 16:00 HRS.)

SUB: TENDER DOCUMENT FOR “CAPITAL OVERHAULING OF TURBINE, GENERATOR & ASSOCIATED WORKS FOR UNIT-5, 210 MW (LMW DESIGN), KOLAGHAT TPS, WBPDC, WEST BENGAL”.

1. Sealed offers are invited from reputed & experienced bidders (**meeting pre-qualification criteria as mentioned**) at the above address to be submitted **in two parts a) Techno-Commercial and b) Price bid parts in two separate sealed covers which may be kept in an outer cover super-scribing the tender number on the envelopes** as indicated in the “ Particulars of the tender” enclosed.
2. The offer shall be submitted as per the instructions of tender document. Only One set of tender document (**in original, downloaded from website**) signed by authorised company rep. of bidder and stamped on each page shall be submitted as detailed further, as given below. Bidders to note specifically that all pages of tender document, including these NIT pages etc. appearing in the website for this particular tender shall be submitted by them (after signing/stamping on each page) as a part of their offer. **Price shall not be mentioned by them anywhere in the techno-commercial portion of offer. Best price shall be mentioned in the relevant price schedule only and submitted in separate sealed envelope.** In case of bidders facing any difficulty in downloading the tender from internet website, they should contact this office (Asst. Engineer or Dy. Manager, Purchase Phone no. 033-23216493/1690). No alteration/changes by bidders is permitted in the tender/NIT appeared in the website.
3. Successful bidder shall have to submit additional set of tender/sign on tender document provided by BHEL, if so decided by BHEL.
4. **Earnest Money Deposit (EMD) of Rs. 1,00,000=00** in the form of crossed Demand Draft / Pay Order (in favour of **Bharat Heavy Electricals Limited, payable at Kolkata**), shall be enclosed by the bidder along with the offer, failing which the tender is liable for rejection.

One time EMD for Rs. 1,00,000.00 (Rupees One Lakh only) will also be valid for all such jobs. Bidders who have deposited one time EMD of Rs. 1.00 lakh with BHEL:PSER for SAS job (evidence of deposit must be submitted) will be exempted from submission of EMD with this tender. The followings may be noted:

In case the bidder deposits separate EMD as mentioned above, there will be no change

- a) in existing clauses of this tender.
- b) In case of bidders having one time EMD; one time EMD can not be used for SD purpose.
- c) Security deposit shall be submitted as per provision of GCC. **Security deposit shall cover the entire duration of work plus the performance guarantee period plus three months notice period prior to release of the same.**
- d) **Bank Guarantee shall not be acceptable towards EMD. The EMD shall be enclosed with the Techno-Commercial Bid (Part-A).**

5. The offers shall be sent in three separate sealed envelopes as under:

COVER NO	SHALL CONTAIN FOLLOWING
COVER-I (TECHNO-COMMERCIAL BID)	i) Covering letter of offer ii) Pre-qualifying documents with all credential documents iii) Demand Draft etc towards Cost of Tender (if applicable) iv) Unpriced Techno-Commercial Bid v) Duly filled all annexures vi) References of subsequent correspondences, if any vii) Copy of records notes of Pre Bid Conference, if applicable/ pre-bid MOM. viii) Price schedule – Unpriced but mentioning only quoted / unquoted against each item ix) Copy of Tender change notice (TCN), if applicable. x) All supporting documents/ Annexures etc as applicable. xi) NIT pages (all pages) xii) No deviation certificate in bidders letterhead as per format given. xiii) <i>Part – D : General Terms & Conditions of Reverse Auction</i>
COVER-II (PRICE BID)	i) Copy of covering letter given in Cover-I ii) Duly filled in Price Schedule
COVER-III (EMD)	Demand Draft etc towards EMD as per instruction (if applicable)

SPECIAL NOTE:

- A)** Above three separately sealed covers shall together be enclosed in a fourth cover (Cover-IV). All the four sealed covers shall be clearly super scribed with **COVER NO WITH NOMENCLATURE, NAME OF THE JOB, TENDER DOCUMENT NO. AND DUE DATE OF SUBMISSION.**
- B)** Offer & documents submitted with the offer shall be signed and stamped in each page by authorised representative of the bidder. No overwriting/correction in tender documents by bidders shall be allowed.
- C)** All documents / Annexures submitted with the offer shall be properly annexed and placed in respective places of the offer as per enclosure list mentioned in the covering letter. BHEL shall not be responsible for any missing documents.
- 6.0 No deviation with respect to tender clauses and no additional clauses/ suggestions/clarification in Techno-commercial bid/Price bid shall normally be considered by BHEL. Bidders are requested to positively comply with the same. Offers with deviation are liable for rejection.
- 7.0 BHEL reserves the right to accept or reject any or all offer without assigning any reasons thereof. BHEL also reserve the right to cancel the tender wholly or partly without assigning any reason thereof. BHEL also reserve the right to split/part award the job. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD)
- 8.0 Bidders must visit site/ work area and study the job content, facilities available, present condition of machines etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions. No additional claim shall be entertained by BHEL in future, on account of non-acquaintance of site/machine conditions at the time of bidding.

- 9.0 For any clarification on the tender document, you may seek the same in writing (two copies) within **01/07/2014**, from the office of the undersigned which will be clarified to all the bidders. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay, and receipt of any query after due date shall not be entertained.
- 10.0 BHEL may decide holding pre-bid conference [PBC] with bidders. On such communication from BHEL, the bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL.
- 11.0 In case of absence of any queries from bidder(s), their quoted price will be PRESUMED to be final and complete with reference to the tender documents (including Tender change notes (TCNs), clarifications, corrigendum issued by BHEL, if any). Bidders are requested to study the tender documents in detail and prepare their queries/clarifications accordingly. All such queries / clarifications shall be cleared/replied by BHEL. Such clarification letters, corrigendum and/or Tender change notes (TCNs), if issued by BHEL, shall form part of tender document.
- 12.0 In the event of any conflict between requirement of any clause of this specification/ documents /drawings /data sheets etc or requirements of different codes/ standards specified/ contradictions between any two clauses of tender document , the same to be brought to the knowledge of BHEL by bidders in writing for clarification before due date of seeking clarification , otherwise, more stringent requirement as may be interpreted by BHEL shall prevail and shall be binding on you . Any typing error/missing pages/ other clerical errors in the tender documents, noticed by you must be pointed out before submission of offer, or else, BHEL'S interpretation shall prevail & binding on you.
- 13.0 Tender document containing above mentioned volumes shall be signed & stamped in all pages including this covering letter. Price bid shall be furnished in the format (Vol-III) enclosed with the tender. Any additional copy, if required, may be taken by photocopying from the tender document given in the web.
- 14.0 **The Price Bids of only those bidders will be opened, who will qualify for the subject job on the basis of pre-qualification evaluation & Techno-Commercial bids etc. BHEL reserves the right to reject the bidders with unsatisfactory past performance in the execution of a contract. BHEL's decision in this regard shall be final & binding.**
- 15.0 While BHEL reserve the right to open the price bid (Cover-II) of the offers in camera, the date & time to open the Cover-II (PRICE BID) tender opening shall be intimated to the bidders in case BHEL decides it to be `Public opening' and in such a case, one authorised representative of the bidder shall be allowed to attend.
- 16.0 **Validity of the offer shall be for six months from the due date of offer submission (including extension, if any).**
- 17.0 Firm prices are to be quoted in whole rupees, in the place meant for price or on the price schedule enclosed as applicable for the full scope of work given in Annexure-II. The rates quoted must be in figures and words as well (Prices quoted must be workable too for the job involved). **Prices quoted by the bidders should be inclusive of all taxes and duties leviable by any statutory authority for this job as on the date of the tender opening (excluding service tax and educational cess on service tax)**
- 18.0 Price Bids shall be evaluated based on Lump sum Price only. However, Unit Rates shall also be furnished if applicable in the Price Schedule.
- 19.0 Overwriting or erasures should be avoided. If however, they exist they must be invariably attested.
- 20.0 BHEL reserves the right to accept or reject any bid without assigning any reasons thereof. BHEL also reserves the right to cancel the tender wholly or partly without assigning any reasons.

- 21.0 While BHEL reserves the right to open the price bid of the offers in camera, the date & time to open the tender opening shall be intimated to the bidders in case BHEL decides it to be 'Public opening' and in such a case, one authorized representative of the bidder shall be allowed to attend.
- 21.0 **Bidders are required to submit best price bid in a separate sealed cover (COVER-II) along with techno-commercial bid (COVER-I) as indicated in sl. no. 5.0 above.**
- 22.0 ***BHEL reserves the right to go for REVERSE AUCTIONING (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.***
- 23.0 ***In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'online sealed bid' in the Reverse Auction. Non-submission of 'online sealed bid' by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue. Information and General Terms and conditions of Reverse Auction is attached in Part-D.***
- 24.0 *Reverse Auction is the type of auction typically conducted to buy goods / items over Internet in which the lowest price bidder wins. In case, the bidders are willing to know the details about the methodology, they may please contact HEAD/PURCHASE OR ASST. ENGINEER /PURCHASE, BHEL, KOLKATA.*
- 25.0 ***However, if reverse auction process is unsuccessful as defined in the RA rules/procedures, or for whatsoever reason, then the sealed 'PRICE BIDS' will be opened for deciding the successful bidder. BHEL's decision in this regard will be final and binding on bidder.***
- 26.0 **Bidders are requested to note that the accepted / agreed tender terms (technical, commercial or on Reverse Auction) in their original offer can not be altered / withdrawn by their own during the processing of tender.**
- 27.0 **The offers of the bidders who are on the banned list as also the offer of the bidders, who engages the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.**
- 28.0 **The bidder may have to produce original document for verification if so decided by BHEL.**
- 29.0 *Suspension of Business dealings: BHEL reserves the right to take action against contractors who fail to perform or indulge in malpractices, by suspending business dealings with them as detailed in Annexure-A.*
- 30.0 *"MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure -B where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender .is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer. "*

Any Bidder falling under MSME category, shall furnish the following details & submit documentary evidence/Govt. Certificate etc. in support of the same along with their techno-commercial offer

Type under MSME	SC/ST owned	Others
Micro		
Small		
Medium		

Note: - If the bidder does not furnish the above, offer shall be processed construing that the bidder is not falling under MSME category.

31.0 Order of Precedence: In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

- i) Amendments/Clarifications/Corrigenda/Errata/Tender change notice (TCN) etc. issued in respect of the tender documents by BHEL
- ii) Notice Inviting Tender (NIT)
- iii) Price Schedule – (Annexure-VII)
- iv) Scope of work & other details - Annexure-I & SAS-I, Annexure-II , Annexure-III, Annexure for HSE & OHSAS and Special note to bidders.
- v) SPECIFIC TERMS AND CONDITIONS FOR SERVICES JOBS
- vi) GENERAL & SPECIAL CONDITIONS OF CONTRACT [FOR SERVICES JOB]

All the bidders are requested to note that all the errata / technical clarifications / corrigendum / extension etc. shall be published in website www.jantermanter.com , www.bhel.com & <http://eprocure.gov.in> . As such, all the bidders are requested to be in continuous touch with these websites.

32.0 Complete offer to be addressed to, ASST. ENGINEER/PURCHASE OR DY. MANAGER/PURCHASE OR HEAD /PURCHASE, BHARAT HEAVY ELECTRICALS LIMITED, POWER SECTOR – EASTERN REGION, PLOT NO.9/1, BLOCK-DJ, SECTOR-II, SALT LAKE, KOLKATA-700091 clearly mentioning the Tender No. along with latest due date of offer submission.

Tenders must adhere to the “GENERAL & SPECIAL CONDITIONS OF CONTRACT (FOR SERVICES JOB) AND “SPECIFIC TERMS & CONDITIONS FOR SERVICES JOB and quote accordingly. Any terms and conditions not covered in this, will be governed by GCC.

BHEL RESERVES THE RIGHT TO ACCEPT/REJECT ANY OR ALL THE BIDS WITHOUT ASSIGNING ANY REASON THEREOF. RESPONSIBILITY OF POSTAL/COURIER DELAY SHALL NOT REST WITH BHEL.

for BHARAT HEAVY ELECTRICALS LTD

DY. MANAGER (PURCHASE)

Agency	Contact details	
BHEL, PSER, Kolkata	Address	Bharat Heavy Electricals Limited, POWER SECTOR – EASTERN REGION 2nd FLOOR, Block-DJ, Plot- 9/1, SECTOR, SALT LAKE CITY, KOLKATA – 700 091
	Phone no.	DIRECT- 033-23216493, 23211690, 23211496; EPABX – 23216130, Extn. – 3225
	FAX no.	033-23211960
	E-mail ID	biplab.pal@bhelpser.co.in

ANNEXURE - IV

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

To,
Bharat Heavy Electricals Limited,
POWER SECTOR – EASTERN REGION
2nd FLOOR, Block-DJ, Plot- 9/1, SECTOR
SALT LAKE CITY, KOLKATA – 700 091
FAX – 033-2321-1960

Sub: NO DEVIATION CERTIFICATE FOR “CAPITAL OVERHAULING OF TURBINE, GENERATOR & ASSOCIATED WORKS FOR UNIT-5, 210 MW (LMW DESIGN), KOLAGHAT TPS, WBPDC, WEST BENGAL”.

Tender No. PSER: PUR: KGT-S151:14 :(ENQ:14:PP:0015:PUR:40) DATE 20/06/2014.

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/newspapers and in case of 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 *and confirm our acceptance to **reverse auctioning process*** and we hereby convey our unqualified acceptance to all terms and conditions as stipulated in the tender and NIT.

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 strictly in accordance with tender instructions.

Thanking you,

Yours faithfully,

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

ANNEXURE - VPRE – QUALIFICATION CRITERIA

Job: “CAPITAL OVERHAULING OF TURBINE, GENERATOR & ASSOCIATED WORKS FOR UNIT-5, 210 MW (LMW DESIGN), KOLAGHAT TPS, WBPDC, WEST BENGAL”.

Tender No. PSER: PUR: KGT-S151:14 :(ENQ:14:PP:0015:PUR:40) DATE 20/06/2014.

SL NO	CRITERIA
A	PRE-QUALIFICATION CRITERIA
1.0	<p>BIDDERS SHOULD HAVE AVERAGE ANNUAL TURNOVER OF MINIMUM Rs 21.30 LAKH IN LAST 3 (THREE) FINANCIAL YEARS, ENDING ON 31-03-2013 AND MUST HAVE EARNED PROFIT IN ANY ONE OF LAST 3 (THREE) FINANCIAL YEARS, ENDING ON 31-03-2013 & SHOULD HAVE POSITIVE NET WORTH AS ON 31-03-2013.</p> <p>AUDITED BALANCE SHEET AND PROFIT & LOSS ACCOUNT OF THE COMPANY NEED BE SUBMITTED FOR LAST 3 (THREE) FINANCIAL YEARS, ENDING ON 31-03-2013 IN SUPPORT OF THIS REQUIREMENT.</p> <p>IN CASE AUDITED FINANCIAL STATEMENTS HAVE NOT BEEN SUBMITTED FOR ALL THE THREE YEARS AS INDICATED AGAINST ABOVE THEN THE APPLICABLE AUDITED STATEMENTS SUBMITTED BY THE BIDDERS AGAINST THE REQUISITE THREE YEARS, WILL BE AVERAGED FOR THREE YEARS.</p>
2.0	<p style="text-align: right;"><i>ERECTION & COMMISSIONING</i> ✓</p> <p>VENDOR SHOULD HAVE EXECUTED AT LEAST ONE JOB OF EITHER OR OR OVERHAULING OF STG <i>STG</i> & AUX. JOBS OF RATING 200 MW OR ABOVE IN ANY UTILITY/ INDUSTRIAL PROJECT IN LAST 3 (THREE) YEARS, ENDING ON LATEST DUE DATE OF SUBMISSION OF OFFER.</p> <p>RELEVANT SUPPORTING DOCUMENTS SHALL BE SUBMITTED.</p>
NOTE FOR SL NO 2.0 ABOVE	
<p style="text-align: center;"><i>ERECTION & COMMISSIONING</i> ✓</p> <p>THE WORD EXECUTED MEANS : OVERHAULING / OR OF <i>STG</i> & AUX, THE WORK SHALL HAVE BEEN COMPLETED UPTO SYNCHRONISATION.</p>	
3.0	<p>BIDDER SHOULD HAVE VALID PAN.</p> <p>RELEVANT SUPPORTING DOCUMENTS SHALL BE SUBMITTED.</p>
4.0	NO CONSORTIUM / JV BIDDING IS ALLOWED FOR THIS TENDER.
5.0	AFTER SATISFACTORY FULFILLMENT OF ALL THE ABOVE CRITERIA, OFFER SHALL BE CONSIDERED FOR FURTHER EVALUATION AS PER NIT AND ALL OTHER TERMS OF THE TENDER.
6.0	CONSIDERATION OF OFFER WILL BE SUBJECT TO CUSTOMER'S APPROVAL OF BIDDER.

GENERAL INFORMATION:

VENDOR SHOULD FURNISH INFORMATION REGARDING PROJECTS IN HAND, DETAILS OF CURRENT LITIGATION AND ARBITRATION CASES, ORDERS REGARDING EXCLUSION/EXPULSION OR BLACK LISTING, IF ANY.

CORRIGENDUM/EXTENSION (IF ANY) OF THIS TENDER WILL BE PUBLISHED IN BHEL WEBSITES.

NOTE: PURCHASE PREFERENCE WILL BE GIVEN TO CPSUs AS PER GOVERNMENT GUIDELINES.

INTERESTED BIDDERS MEETING THE ABOVE QUALIFYING REQUIREMENTS MAY DOWNLOAD TENDER DOCUMENTS FROM BHEL WEBSITE.

i)	DOWNLOAD OF TENDER DOCUMENT STARTS	20/06/2014
ii)	TENDER DOWNLOAD CLOSES ON	11/07/2014 AT 15:00 HRS.
iii)	LAST DATE OF SEEKING CLARIFICATIONS	01/07/2014
iv)	PRE-BID DISCUSSION (IF REQUIRED) ON	TO BE INTIMATED (IF ANY)
v)	LAST DATE OF SUBMISSION OF OFFER	11/07/2014 UP TO 15:00 HRS.
vi)	DATE OF TECHNO-COMMERCIAL BID OPENING	11/07/2014 AT 16:00 HRS.

BHEL RESERVE THE RIGHT TO ACCEPT/REJECT ANY OR ALL THE BIDS WITHOUT ASSIGNING ANY REASON THEREOF. RESPONSIBILITY OF POSTAL/COURIER DELAY SHALL NOT REST WITH BHEL.

NOTE: PRE-BID DISCUSSION, IF TAKE PLACE, SHALL FORM PART OF THE TENDER DOCUMENT. NO CLARIFICATIONS/QUIERIES FROM THE TENDERERS AFTER 01/07/2014 OR PRE-BID CONFERENCE (IF TAKES PLACE) SHALL BE ENTERTAINED BY BHEL.

ENCLOSURES:--

- i) SCOPE OF WORK & OTHER DETAILS: (ANNEXURE-I – 12 PAGES)
- ii) ESSENTIAL CONDITIONS TO BE FULFILLED BY SUCCESSFUL BIDDER:
(ANNEXURE-SAS-I- 02 PAGES)
- iii) TENTATIVE LIST OF T & P AND LIST OF CONSUMABLES TO BE ARRANGED BY
SUCCESSFUL BIDDER: (ANNEXURE-II & III– 05 PAGES)
- iv) ANNEXURE FOR HSE & OHSAS: 16 PAGES
- v) SPECIAL NOTE TO BIDDERS : 02 PAGES
- vi) GENERAL & SPECIAL CONDITIONS OF CONTRACT (FOR SERVICES JOB- 23+14
PAGES)
- vii) NO DEVIATION CERTIFICATE AS PER PRESCRIBED FORMAT (ANNEXURE-IV)
- viii) PRE-QUALIFICATION CRITERIA (ANNEXURE-V)
- ix) DECLARATION OF THE BIDDERS (ANNEXURE-VI)
- x) PRICE SCHEDULE (ANNEXURE-VII)
- xi) *GENERAL TERMS & CONDITIONS OF REVERSE AUCTION (PART – D)*
- xii) *FORMAT FOR SECURITY DEPOSIT CUM PERFORMANCE BANK GUARANTEE*
- xiii) *RTGS FORMAT (REAL TIME GROSS SETTLEMENT)*
- xiv) *SUSPENSION OF BUSINESS DEALING WITH SUPPLIERS - ANNEXURE-A*
- xv) *FORMAT FOR CERTIFICATE BY CHARTERED ACCOUNTANT ON LETTER HEAD -
ANNEXURE-B*
- xvi) *FORMAT FOR DECLARATION FOR RELATION IN BHEL*
- xvii) *FORMAT FOR SEEKING CLARIFICATION*

**ALL THE PAGES OF NIT SHALL BE DULY SIGNED & STAMPED BY THE BIDDER
WHILE SUBMITTING THE OFFER.**

For & on behalf of
BHARAT HEAVY ELECTRICAL LIMITED

DY. MANAGER (PURCHASE)

PARTICULARS OF THE TENDER

- A) TENDER NUMBER : **PSER: PUR: KGT-S151:14 :(ENQ:14:PP:0015:PUR:40) DATE 20/06/2014.**
- B) WORK : “CAPITAL OVERHAULING OF TURBINE, GENERATOR & ASSOCIATED WORKS FOR UNIT-5, 210 MW (LMW DESIGN), KOLAGHAT TPS, WBPDC, WEST BENGAL”.
- C) TENDER SUBMISSION DUE DATE : **ON 11/07/2014 UP TO 15:00 HRS.**
- D) TECHNICAL BID OPENING DATE : **ON 11/07/2014 AT 16:00 HRS.**
- E) PRICE BID OPENING :
- F) VALIDITY OF OFFER : SIX (06) MONTHS FROM LATEST DUE DATE OF OFFER SUBMISSION.
- G) MOBILIZATION TIME : **03 (Three) days prior to shutdown of machine**
- H) COMPLETION PERIOD : **37 (Thirty Seven) days from De-synchronization to Re-synchronization, as per Scope, Annexure-I.**
- I) TARGET COMPLETION DATE :
- J) The vendors should furnish the following documents for our scrutiny along with papers for pre-qualification for qualifying for price bid opening.
- 1) Credential / Experience certificates in line with Pre-Q & requirements in line with tender specifications
 - 2) PAN NO & Photo Copy of PAN CARD/Sales Tax Clearance certificate.
 - 3) Latest Banker’s certificate for financial soundness.
 - 4) Balance sheets & P&L Accounts for the preceding three years
 - 5) Organizational chart
 - 6) Relevant list of T&P held by the vendor earmarked for the tendered job
 - 7) List of concurrent contracts held by the Contractor.

Particulars of Tender (Continued)

Facilities to be provided to contractors as described below:-

All T&P required / recommended for the work against this tender shall have to be mobilized by the contractor fully at their expense within the quoted price.

Any special T&P i.e. T&P made available by the manufacture of the equipment to the customer can be made available to the contractor free of charges subject to availability at site.

Any consumables required / recommended for the work against this tender shall have to be mobilized by the contractor fully at their expenses within the quoted price.

Regarding other facilities for the contractors the following table clarifies adequately. Vendors are expected to quote considering these without any deviations from the provisions of “Notice Inviting Tender”.

Deviated offers are liable for rejection of price bid opening

a) Water	Free of Charges
b) Power	Free of Charges
c) Storage Space	Free of Charges
d) Covered Space	Free of Charges
e) Uncovered Space	Free of Charges
f) E.O.T. Crane	Free of Charges
g) Operators for the above	Cannot be provided
h) Residential accommodation for sub-contractors’ personnel.	Cannot be provided
i) Compressed air	Free of Charges
j) Work shop facilities	Free of Charges

k) i) Crane for heavy materials	Cannot be provided
ii) Operator for K (i)	Cannot be provided
iii) Fuel charges for K (ii)	Cannot be provided
l) Other material handling equipment	Cannot be provided
m) Trailor	Cannot be provided
n) Wooden Sleepers	Cannot be provided
o) Tarpulins	Cannot be provided
p) Scaffolding materials	Cannot be provided

No advance is payable to the contractors for mobilizing the site. Any payment can be made only against running bills as per payment terms.

For & on behalf of
BHARAT HEAVY ELECTRICALS LIMITED

DY. MANAGER (PURCHASE)

ANNEXURE-VI

DECLARATION OF THE BIDDERS

Job: "CAPITAL OVERHAULING OF TURBINE, GENERATOR & ASSOCIATED WORKS FOR UNIT-5, 210 MW (LMW DESIGN), KOLAGHAT TPS, WBPDC, WEST BENGAL".

01. I,hereby certify that all the information and date furnished by me with regard to this **Tender No. PSER: PUR: KGT-S151:14 :(ENQ:14:PP:0015:PUR:40) DATE 20/06/2014** are true and complete to the best of my knowledge.
02. I have gone through the tender specifications, scope of work, terms and conditions mentioned in Annexure as well as General and Special conditions of contract and various stipulations in detail and agree to abide by them and comply with the requirements and intent of specifications.
03. I also certify that there have been no deviations from the tender requirements in the bid submitted against this tender.
04. I further certify that I am duly authorized representative of the under mentioned tenderer and hold a valid power of attorney to this effect, a copy of which is enclosed.

Signature:

Name :

Date :

Designation :

Seal:

Tenderers Name and address

PART-D:
General Terms & Conditions of Reverse Auction

Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit 'online sealed bid' in the Reverse Auction. Non-submission of 'online sealed bid' by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Process Compliance form (**Annexure-III of Business Rule Document of Reverse Auction – shall be shared to bidders along with intimation of RA schedule**) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (**as per Annexure-IV of Business Rule Document of Reverse Auction**) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.
12. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the 'Business Rules of Reverse Auction', which will be communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. In case BHEL decides to go for reverse auction, the H1 bidder(s) (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

Annexure-I
SCOPE OF WORK FOR OVERHAULING OF TURBINE AND GENERATOR
OF 210 MW UNIT-5 AT KTPS/WBPDCL

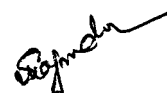
DURATION – 37 DAYS (DESYNCHRONISATION TO RESYNCHRONISATION)

The scope under this specification is not exhaustive but indicative only. However, any activity covered under the normal course of overhauling job shall be deemed to be within the scope. After rolling and full speed of the Unit after the overhaul, the contractor has to check for vibration levels and assist during trim balancing so as to improve the pedestal overall vibrations from that of the pre overhauling values. During commissioning works, groups(sub contactor persons) for different areas shall be made available round the clock in 12 hours shifts till 72 hours full load operation of the Unit. **In case any part of the job is not required to be carried out, a deduction will be effected as per percentage shown against those items. In addition to the scope as detailed below , the scope also shall include other essential conditions to be fulfilled as mentioned in Annexure- SAS-I**

GENERAL ACTIVITIES.

13.00%

1. Complete removal of insulation of HP,IP,LP ,cross-over pipes, leak-off lines ,LP front and rear gland pipes. Removal of insulation of pipes as required indicated by site engineer. Cleaning of all insulation material , disposal of the same to designated location. 0.50%
2. Complete dismantling of all turbine bearing pedestals and oil guards. 0.25%
3. Measurement of coupled run-out, turbine float during dismantling. 0.25%
4. Complete dismantling of bearings (01 to 05) after measurement of interference ,bearing SOC and TOC. 0.50%
5. Measurement of journal slope, bearing heights etc. during dismantling and assembly 0.25%
6. Measurement / correction of swing value of rotor system during dismantling and assembly. 1.00%
7. Facial correction of all rotors as required. 0.50%
8. De-coupling of HP-IP,IP-LP and LP-Gen; , HP-MOP 0.50 %
9. Alignment checking of HP-IP,IP-LP,LP-Gen, HP-MOP during dismantling. 0.50%
10. DPT and UT of all TG bearings (01 to 07). 0.50%
11. Preliminary alignment correction of HP-IP,IP-LP,LP-GEN. Bearing matching with pedestals. Replacement of bearings as required. 0.75%
12. Final alignment of rotor system after final box-up. 0.50%



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| 13. | Reaming of HP-IP, IP-LP and LP-Gen, HP-MOP as required. Coupling of HP-IP, IP-LP, LP-Gen, HP-MOP. Measurement of final coupled run-out. | 1.25% |
| 14. | Setting of all bearing SOC and TOC. Replacement of bearings as required. | 0.50% |
| 15. | Measurement of bearing bore. | 0.50% |
| 16. | Setting of all bearing interference. | 0.50% |
| 17. | Removal of fins from all oil guards and refining of oil guards. Machining of oil guards as required. | 0.50% |
| 18. | Assistance during oil flushing including cleaning of MOT strainer. | 0.50% |
| 19. | Normalisation of bearing. | 0.25% |
| 20. | Putting machine of Barring gear. | 0.25% |
| 21. | Arrangement of crane operators(MINIMUM 03 NOS) for round the clock operation. | 1.00% |
| 22. | Assistance during trim balancing of rotor system after rolling as required. | 0.75% |
| 23. | Arrangement of Hanger expert (Ex BHEL preferable) for a duration of five days for critical pipe hangers setting. Arrangement of scaffolding for setting of hangers. Scope includes from boiler outlet to steam inlet pipe. | 1.00% |

NOTE: Arrangement of turbine supervisor accepted by BHEL site In-charge for entire duration of work falling which 3000/per day will be deducted .

HP CYLINDER

16.00%

- | | | |
|----|--|-------|
| 1. | Dismantling / assembly of casing thermocouple. | 0.25% |
| 2. | Dismantling of casing parting plane nuts by INDUCTION HEATING PROCESS. Manpower Assistance during induction heating process. BIDDER IS NOT REQUIRED TO ARRANGE INDUCTION HEATING MACHINE AT KTPS/WBPDCL. Loosening of loop pipes. | 0.75% |
| 3. | Dismantling of leak-off lines of control valves. | 0.25% |
| 4. | Lifting of HP top casing. | 0.25% |
| 5. | Dismantling/lifting of HP casing top liners. | 0.25% |
| 6. | Measurement of HP casing steam flow path, free run out of rotor. | 0.25% |

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7. *Lifting of HP rotor and bottom internals.* 0.25%
8. *Removal of all gland and diaphragm seals. Aluminium blasting of seals. Replacement of internal seals as required.* 0.50%
9. *Replacement of all HP diaphragm pick seals and subsequent machining of the same after refitting.* 0.75%
10. *Aluminum cleaning of HP rotor including arrangement of alumina .* 0.50%
11. *Aluminum cleaning of HP top and bottom internals including arrangement of aluminum.* 1.00%
12. *Facial run-out of HP rotor at HP end and correction by scrapping as required.* 0.25%
13. *Dismantling of HP rotor front stub shaft and correction of run-out.* 0.25%
14. *Kerosene test of elasting ring. Replacement of elastic ring including face machining as required.* 0.25%
15. *DPT of casing , journals , fasteners , diaphragms as required. Arrangement of hardness testing machine for measurement of hardness of fasteners above M64. Loop pipe blue matching* 0.50%
16. *Sole plate cleaning of MBP,FBP after lifting of MBP,FBP (ONE AT A TIME) and application of lubricating compound at sole plate. Locking of pedestal/pipe line is included. Casing palm keys to be removed and replaced as required.* 1.25%
17. *Horn drop of HP casing and correction as required.* 0.50%
18. *Centring of HP internals (top and bottom)including elevation transfer.* 0.75%
19. *Measurement of parting plane stud length. Complete removal of parting plane studs , control valve studs . Insitu drilling of seized studs as required.* 0.50%
20. *Seal cutting/ tape checking of HP internals ,top and bottom. Setting of butt clearances. Replacement of seals of internals as required.* 0.50%
21. *Adjustment of thermal clearances of HP internals.* 0.25%
22. *Correction of steam flow path by grinding of liners/diaphragms at one end and complete welding at other end. Correction of casing bump.* 0.50%
23. *Checking of deformation of diaphragms by straight edge.* 0.25%

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| 24. | <i>Blue matching of loop pipes.</i> | 0.25% |
| 25. | <i>Repair of flange heating jacket by welding and pneumatic testing of jacket at 4.5 kg/cm².</i> | 0.50% |
| 26. | <i>Overhauling/repair of casing amortizer.</i> | 0.25% |
| 27. | <i>Replacement of boroscopic plugs. Arrangement of liquid Nitrogen is in the scope of bidder</i> | 0.25% |
| 28. | <i>Cutting of casing drain and ensure freeness of the pipe. Final welding of pipe.</i> | 0.25% |
| 29. | <i>Parting plate tightening with induction heating machine to check gaps . Parting plane gap measurement.. Building of parting plane ,stud heating groove enlargement as required.. Measurement of nozzle bore. Weld build up of casing parting plane with eutectic 670 rod with high pressure welder and subsequent matching with top half glass plate to make casing seal bore at gland and nozzle portion circular when top and bottom half fully tightened. Manpower assistance during heating process.</i> | 1.50% |
| 30. | <i>Minor repair of diaphragm blades for thinning and cracks.</i> | 0.25% |
| 31. | <i>Mock box-up of HPC. Final box-up of HPC. Final tightening of studs by induction machine. Servicing of casing amortiser</i> | 0.50% |
| 32. | <i>Final box-up of end chamber after seal cutting , assembly of gland steam pipelines.</i> | 0.25% |
| 33. | <i>Removal of insulation from all steam pipe connected to HP and IP casing up to a length of 2 m. Proper cleaning of pipe line. DPT of pipe line . Correction of crack as required.</i> | 0.75% |
| 34. | <i>Refurbishments / repair of HP nozzle segment blades.</i> | 0.50% |

IP CYLINDER **14.00%**
(IP ROTOR REPLACEMENT INCLUDED)

- | | | |
|----|---|-------|
| 1. | <i>Dismantling / assembly of casing thermocouple.</i> | 0.25% |
| 2. | <i>Dismantling of casing parting plane nuts by INDUCTION HEATING PROCESS. Manpower Assistance during heating .BIDDER IS NOT REQUIRED TO ARRANGE INDUCTION HEATING MACHINE AT KTPS/WBPDCL. Loosening of loop pipes.</i> | 0.75% |
| 3. | <i>Dismantling of leak-off lines of control valves.</i> | 0.25% |
| 4. | <i>Lifting of IP top casing.</i> | 0.25% |
| 5. | <i>Dismantling/lifting of IP casing top liners.</i> | 0.25% |
| 6. | <i>Measurement of IP casing steam flow path. Measurement of free run out of IP rotor.</i> | 0.25% |

Diagrams

7. *Lifting of IP rotor and bottom internals.* 0.25%
8. *Removal of all gland and diaphragm seals. Sand blasting of seals. Replacement of IP internal seals as required.* 0.50%
9. *Replacement of all IP diaphragm pick seals including IP nozzle pick seal and subsequent machining of the same* 0.75%
10. *Replacement of existing IP rotor with repaired IP rotor. Reaming and honing at both end. Machinning of coupling bolts included in the scope of work.* 1.00%
11. *Steam flow path adjustment of diaphragms by grinding and welding by eutectic 670 rods.* 0.75%
12. *Aluminum cleaning of IP top and bottom internals including arrangement of aluminum.* 1.00%
13. *Facial run-out of IP rotor both end and correction by scrapping as required.* 0.25%
14. *Kerosene test of elastic ring. Replacement of elastic ring including face machining as required.* 0.25%
15. *DPT of casing , journals , fasteners , diaphragms as required. Arrangement of hardness testing machine for measurement of hardness of fasteners above M64. Loop pipe blue matching.* 0.50%
16. *Centering of IP internals (top and bottom)including elevation transfer.* 0.75%
17. *Seal cutting of IP internals ,top and bottom. Setting of butt clearances* 0.50%
18. *Parting plane matching, bore measurement of IP glands. Replacement of seals of internals as required.* 0.50%
19. *Adjustment of thermal clearances of IP internals.* 0.25%
20. *Measurement of parting plane stud length. Complete removal of parting plane studs , control valve studs . In-Situ drilling of seized studs as required.* 0.50%
21. *Correction of steam flow path by grinding of liners/diaphragms at one end and complete welding at other end. Correction of casing bump.* 0.75%
22. *Checking of deformation of diaphragms by straight edge.* 0.25%
23. *Blue matching of loop pipes.* 0.25%
24. *Repair of flange heating jacket by welding and pneumatic testing of jacket at 4.5 kg/cm².* 0.50%

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|-----|---|--------------|
| 25. | <i>Replacement of boroscopic plugs. Arrangement of liquid Nitrogen is in the scope of bidder.</i> | 0.25% |
| 26. | <i>Parting plate tightening with induction heating machine to check gaps . Parting plane gap measurement. Repair of parting plane, grinding of parting plane as required. Building of parting plane , stud heating groove enlargement as required.Manpower assistance during induction heating process.</i> | 0.50% |
| 27. | <i>Minor repair of diaphragm, blades for thinning and cracks.</i> | 0.25% |
| 28. | <i>Mock box-up of IPC. Final box-up of IPC. Final tightening of parting plane by induction heating machine.</i> | 0.50% |
| 29. | <i>Final box-up of end chamber after seal cutting , assembly of gland steam pipelines.</i> | 0.25% |
| 30. | <i>Refurbishment/repair of IP nozzle blades.</i> | 0.75% |
| | <u>LP CYLINDER</u> | 8.50% |
| 1. | <i>Loosening of parting plane nuts. Lifting of LP top casing. Locking of condenser spring with channel at the start and removal during final assembly..</i> | 0.25% |
| 2. | <i>Dismantling, lifting of LP top internals.</i> | 0.25% |
| 3. | <i>Measurement of free run-out of LP rotor. Measurement of LP steam flow path.</i> | 0.25% |
| 4. | <i>Dismantling/lifting of LP rotor and bottom internals.</i> | 0.75% |
| 5. | <i>Aluminum cleaning of LP rotor including arrangement of aluminum.</i> | 0.75% |
| 6. | <i>Aluminum cleaning of LP internals including arrangement of aluminum.</i> | 0.75% |
| 7. | <i>Measurement of free and facial run-out. Correction of facial run-out.</i> | 0.50% |
| 8. | <i>Replacement of broken, damaged damping wires of LP stages as required.</i> | 0.50% |
| 9. | <i>Stelliting of LP 26th, 27th, 30th and 31 st stage. Party has to arrange brazer for stelliting work. (optional)</i> | 0.75% |
| 10. | <i>Replacement of safety gasket.</i> | 0.25% |
| 11. | <i>Centring of LP internals including glands including elevation transfer.</i> | 0.75% |
| 12. | <i>Setting of thermal cls , diaphragm key cl etc of internals.</i> | 0.25% |

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13. Parting plane matching of LP glands. Measurement of bores of LP glands. 0.50%
14. DPT of casing , diaphragms and rotor as required. 0.50%
15. Minor repair of diaphragm blades for thinning and cracks. 0.25%
16. Seal cutting of LP internals, tape checking, replacement of gland and diaphragms seals as required. 0.50%
17. Mock box-up of LP. Final box-up of LP 0.50%
18. Final assembly of cross-over pipes, gland pipes. 0.25%

GOVERNING SYSTEM

1.0%

1. Dismantling of all governing pipe lines in front bearing pedestal.
2. Assistance during setting of Governor characteristic.
3. Re-visioning of
 - Emergency governors including strikers.
 - Speed governors pilot block.
 - Intermediate pilot.
 - Differentiator.
 - CVSM
 - Load limiter
 - Speeder Gear
 - Valve for oil injection.

This includes dismantling ,replacement of worn out components as required.

MOP

1.0%

1. Complete dismantling MOP.
2. DPT of casing and impeller.
3. Replacement of bearings.
4. Dismantling of MOP NRV. Replacement of worn out parts including bearing.
5. Replacement of quill shaft, gears as required.
6. Setting of MOP float.
7. Final box-up of MOP
8. Final alignment of HP-MOP.

CONTROL VALVES.

1.00%

1. Dismantling of HPCVs(04 nos) and IPCVs (04 nos) along with columns.
2. Dismantling/servicing of columns. Replacement of worn out components of columns as required (08 nos columns)
3. Blue matching of all HPCVs and IPCVs seat .
4. Replacement of worn out parts of all HPCVs and IPCVs like liner, spindle, relief valve etc as required.(HPCV1 AND 3 IS MUST)
5. DPT of strainer, spindle, valve seat , valve as required.
6. Blue matching of nipple with body.
7. Replacement of nipple as required.
8. Assistance during co-axiality checking of valves. Drilling and locking of pins.

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CAM DISTRIBUTION SYSTEM.

0.50%

This includes dismantling of HPC and IPC cam shaft assembly along with rack. Replacement of bearings , shaft as required. Replacement of cam and subsequent locking is also included . Setting of cam bearing interference.

BARRING GEAR

0.50%

This includes dismantling of barring gear, matching of mating joint, replacement of bearings as required. Alignment of barring gear with motor. Strengthening of barring gear support is also included in this scope.

ESVs AND IVs ALONG WITH SERVOMOTOR.

0.50%

1. *Dismantling of ESVs and IVs servomotor.*
2. *Servicing of servomotors including replacement of worn out components.*
3. *DPT of ESVs and IVs strainers. Replacement of strainer as required.*
4. *Lapping of valve seat.*
5. *Replacement of worn out components like spindle valve etc.*
6. *DPT of disc spring of ESV and replacement as required.*
7. *Blanking of IV with blanking plate for boiler hydro test.*
8. *Replacement of nipples as required. Blue matching of nipple with body.*

SLOW SPEED BALANCING OF TWO ROTORS

2.00%

(HP AND LP ROTOR)

- 1 Unloading/unpacking and installation of the balancing machine at site. Installation of the whole machine on preplanned and erected rails.
- 2 Coupling of TURBINE rotors with adaptor shaft , as necessary. (Adaptor shaft to be arranged by customer).
- 3 Placement of rotors on the balancing machine and assembly.
- 4 Assistance during "Slow Speed Balancing" of rotors.
5. Fixing of balancing wts and locking of the same.
- 6 Dis-assembly and lifting of rotors and placement on stand.
- 7 Dismantling of balancing equipment, packing & loading for onward transportation.

VALVE SEAT REPLACEMENT OF HPCVs AND ESV FOR TOTAL 6.0%

6 NOS. VALVES (Prorata on each valve will be paid)

01. Grinding of weld of valve seat.
02. Removal of valve insulation.
03. Drilling of two no locking radial pins.
04. Arrangement of jack device for removal of valve seat.
05. Heating of outside casing by bigger size gas nozzle.
06. Jacking of valve seat.
07. Machining of HP casing groove to remove ovality. Vendor has to mobilize special machine for removal of HPCV ovality.(NOT exceeding 0.30 mm diametrically)
08. Machining of valve seat outside dia. Transportation of valve seat to work shop outside plant and bring back is included in vendor's scope.
09. Assembly of valve seat with interference. Arrangement of liquid nitrogen is included in scope.

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MPI OF TURBINE COMPONENTS. 1.50%
COMPONENTS TO BE CARRIED OUT:

01. HP CASING.
02. IP CASING.
03. HP TOP AND BOTTOM INTERNALS INCLUDING VALVE BODY
04. IP TOP AND BOTTOM INTERNALS INCLUDING VALVE BODY
05. LP TOP AND BOTTOM INTERNALS.
06. HP ROTOR.
07. LP ROTOR.

VENDOR HAS TO ARRANGE MPI KITS ALONG WITH OPERATOR AND CONSUMABLES. ROTOR WILL BE DONE BY COILING METHOD. HOWEVER CASING ALONG WITH VALVE BODY WILL BE CARRIED OUT BY YOKE PROCESS.

VARIOUS TESTS OF SPARE HP CASING TOP AND BOTTOM HALVES. 1.50%

VENDOR HAS TO CARRY OUT VARIOUS FOLLOWING TESTS INCLUDING CONSUMABLES AND TESTING EQUIPMENT AND OPERATOR ON SPARE HP CASING

01. REPLICA OF HP CASING AND HP ROTOR – MINIMUM 15 LOCATION
02. MPI OF HP CASING.
03. HARDNESS MEASUREMENT OF CASING .
04. DPT OF SUSPECTED ZONE OF HP CASING.
05. UT OF HP CASING.

AFTER COMPLETION OF JOB TEST REPORT TO BE SUBMITTED

ASSISTANCE DURING TRIM BALANCING OF ROTOR SYSTEM AFTER OVERHAULING 1.00%

GENERATOR : 22%

1. Gas leakage test of Generator at 4.0 kg/sq. cm. (by air) for physical checking of gas leakage through all terminal bushings (9 nos.), stator water header bushings (2 nos.), stator RTD terminal flanges & rotor CC bolts (outer & inner) etc **0.25%**
2. Opening of generator manhole and cleaning of generator casing from inside after inspection. **0.25%**
3. Seal float checking of hydrogen seals and dismantling of seal oil pipe lines (after draining of oil from seal oil damper tank). **0.25%**
4. Dismantling of hydrogen seals, seal body and oil catchers after checking all the measurements **0.25%**
5. Generator rotor thrust collar run out and verticality checking and machining / grinding at rotor locked condition, if required **0.25%**
6. De-coupling of LP-Generator rotor and checking of initial alignment. Coupled and free run out checking of coupling and journals for bearing no. 6 and 7 after top half removal of bearings. **0.25%**
7. Gap measurement of oil catcher of bearing 7. Removal of bearing covers of bearings 6 & 7 and interference checking. Removal of top half bearings 6 & 7 and oil clearance checking. **0.25%**

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8. Dismantling of lube oil pipe lines, end-shields, fan cover and fan blades after checking all the Measurements. **0.25%**
9. Checking of air gap, magnetic off-set and centering of rotor. **0.25%**
10. Rotor coupling facial run out checking to be done and corrections to be done if necessary. **0.25%**
11. Removal of bottom half of bearing 7, IR value checking of bearing no. 7 pedestal including all oil pipe lines. Preparation of generator rotor threading out. **0.25%**
12. Generator rotor threading out. IR value checking of generator rotor before & after threading out. **0.5%**
13. After rotor thread out generator stator is to be covered with temporary structure and tarpaulin to minimize ingress of dust etc. foreign materials. The structure is to be dismantled after completion of work. **0.25%**
14. Initial hydraulic test and Reverse flushing (necessary temporary arrangements & fabrication are to be done) of stator winding with DM water and thorough checking for leakages if any. Rectification for minor leakages, if any, to be done **0.25%**
15. Hydrogen cooler U-bends, vent lines to be removed and all the coolers to be taken out. **0.25%**
16. Hydrogen coolers water boxes to be dismantled and painted after cleaning. Tube internals to be cleaned with nylon brush, also to be washed externally to remove oil and dirt. Side gaskets are to be replaced if required.. Hydrogen coolers to be boxed up with new gaskets and hydro-test of coolers to be carried out. Sliding rollers to be checked /corrected. Plugging of tubes to be done if any leakage in the tube is found (plugs to be provided by KTPS, WBPDCCL). Coolers, if found necessary, to be replaced by new coolers with all necessary checking, cleaning, matching, painting, gasket replacement, hydro-testing etc. (New coolers will be supplied by KTPS, WBPDCCL. **0.75%**
17. Cleaning and inspection of hydrogen coolers chamber in generator casing. Checking of RTD for cold gas & hot gas and replacement if necessary. Coolers to be fitted back in positions with new gaskets after overhauling work. **0.25%**
18. Inspection in detail after thorough cleaning of generator stator, core assembly etc. Checking for core looseness (knife test) and rectification. Modification of pipe lines inside generator casing if required to prevent ingress of oil in hydrogen dryers, pressure impulse line and purity meter. **0.25%**
19. ELCID test & Repeat ELCID test are to be done by bidder within the quoted price for core testing. Minor core repairing if required, is to be done and to be tested for checking of improvement. **ELCID test kit & Operator is to be arranged by bidder within the quoted price 0.25%**
20. Inspection, checking and mapping of stator slot wedges (fitted with top ripple spring), tightening and correction of ventilation ducts wherever necessary. **Wedge deflection test kit along with the operator is to be arranged by the bidder within the quoted price.** Checking & replacement if necessary of slots RTDs during wedging. All the slot RTDs and available core RTDs are to be set right up to the terminal point of the JB. **0.5%**
21. Checking of Copper tubes / Teflon tubes, Rubber bushes (grommets), Connection nipples, Inlet / outlet headers of stator water, Stator water bushings. Rectification of minor abnormalities and / or replacement to be done as per requirement. Gaskets of stator water bushings to be replaced along with pneumatic testing outside stator. **0.25%**
22. Replacement of all gaskets of connected pipe lines to generator body; LLD, gas drier, H2 cooler water pipes etc. and cleaning of all liquid line drains. **0.25%**

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23. Checking of stator overhang bracket bolts and locking of the same. All bracket bolts are to be threaded out for checking of crack, replacement and refitting. Prick punch of nuts to be ensured. Magnetic bolts to be replaced with non-magnetic ones. **0.25%**
24. All Technological bolts to be checked and to be removed if found defective. **0.25%**
25. Inspection of stator-overhang winding, Retightening/Re-braiding with replacement of spacers /grommets/packers as necessary. All overhang supports are to be checked and necessary tightening/ repair/replacement are to be done. **0.25%**
26. Checking of phase and neutral bushings for cracks. Replacement of the bushings' insulators to be taken up as required with necessary HV testing. Gasket of all phase and neutral bushings to be replaced, if required. Removal and refilling of putty around bushings and inside the casing. HV testing of the dismantled bushing insulators to be done if required **0.50%**
27. Assistance during NFT of Stator-overhang along with correction if required is to be done. **0.25%**
28. Final hydraulic test of generator stator winding with DM water after completion of stator work. **0.5%**
29. Hot air blowing through generator stator winding bars followed by puffing in cyclic manner to be done for achieving PI value before rolling of the machine (all blowing arrangements will be provided by WBPDCI). **0.25%**
30. Physical inspection, Purge test for slot portion and overhang portion is to be done and entered in log sheets. **Arrangement for Purge test kit is to be arranged by the bidder within the quoted price.** **0.5%**
31. Gas tightness test of generator rotor. Removal of fan hub by flame heating for checking and replacement of CC bolts and washers (both inner & outer), as per requirement - **tools for thread cleaning and thread restoration are to be provided by the bidder within the quoted price.** DPT, UT test of retaining rings are to be checked **Arrangement of UT team along with kit to be arrangement by the bidder within the quoted price.** **0.75%**
32. Physical inspection of slip ring assembly including measurement of slip ring O/D and groove depths. **0.25%**
33. Checking of IR, DC resistance and impedance of rotor at different stages by WBPDCI and all assistance are to be extended during testing by the bidder within the quoted price. **0.25%**
34. Checking of IR, PI, DC resistance and capacitance per phase of generator stator winding by testing team of WBPDCI and all assistance are to be extended during testing by the bidder. **0.25%**
35. Tan-delta and Partial discharge tests of the Stator and RSO test of the Rotor are to be carried out. **Necessary testing equipments for Tan-delta , Partial discharge and RSO along with operator is to be arranged by the bidder within the quoted price.** For electrical tests of the stator, necessary drying out of the stator winding with minimum PI value of 2 is to be achieved. **1.50%**
36. Dry out, glue injection (if necessary) and varnishing of generator stator with dry oxygen cylinder. **0.25%**
37. Dry out and varnishing of generator rotor with dry oxygen cylinder. **0.25%**
38. Cleaning and parting plane matching of bearing, oil guards, oil catchers, seal bodies and endshields as required. Generator rotor coupling face & coupling hole cleaning. Bore measurement of coupling holes, Journal polishing and matching of bearing babbitt with journal. Matching of bearings with housing. **0.25%**
39. DPT & UT of seal liners, hydrogen seal parting plane matching, matching with rotor thrust collar and taper cutting including seal body and seal liner replacement, if required. True surface plate along with UT kit and operator is to be arranged by the bidder within the quoted price. **0.25%**
40. Replacement of old fins of oil catchers and matching as per requirement. **0.25%**

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41. DPT and Ultrasonic Test of generator bearings and replacement of bearings, if required, with all necessary machining, adjustment etc. work. Bedding, resetting of clearances (top & side oil) & interference of bearings are to be done. **0.25%**
42. Checking and replacement (if required) of RTD duplex in seal liner and bearings 6&7. **0.25%**
43. DPT of the following components are to be carried out- (a) coupling bolts, (b) rotor fan Blades & pins. If required. **0.25%**
44. Generator rotor threading-in. IR value of rotor to be checked before and after rotor threading-in. Placing of pedestal no. 7 and bearing no. 6 & 7 lower halves. **0.5%**
45. Alignment of LP-Generator. Free and coupled run out checking. **0.5%**
46. Bearing no. 7 pedestal IR value to be checked. Necessary corrections to be done as required for improvement of IR value including all oil pipe lines. **0.25%**
47. Air gap, magnetic axis and centering of rotor to be checked. **0.25%**
48. Assembly of rotor fan blades. **0.25%**
49. Assembly of generator, which includes fixing of end-shields, fan covers, seal body, seal ring, oil catchers, lube and seal oil pipe lines etc. All these assemblies to be done with new gaskets after recording all clearances. **1.0%**
50. Coupling of LP-Generator and bolts to be stretched as per requirement. Reaming / honing of LP Generator coupling holes as required and assistance during machining of bolts. Reaming & honing team to be arranged by the bidder within the quoted price if required. **1.0%**
51. JOP line connections to be checked. Hoses to be replaced as per requirement. **0.25%**
52. Seal oil lines to be flushed with seal oil. Preparation of oil spaces of bearing no. 6 & 7 and assistance during oil flushing and normalization of bearings. All associated pipe lines of seal oil and lube oil to be fitted back. Modification of seal oil drain line slope to be done to arrest ingress of oil at TE, if required. **0.25%**
53. Air tightness test of generator to be carried out after seal float checking and seal establishment. **0.5%**
54. Machine on barring gear after lube oil establishment. **0.25%**
55. Assistance during generator dry out if necessary and clearance for hydrogen feeding after PI value Checking. **0.25%**
56. Stator water spool piece connection for normalization of stator water system and clearance for bus duct connection. **0.25%**
57. Assistance during re-commissioning **0.25%**
- 58) Slip ring cutting and polishing. **0.75%**
- 59) Replacement of slip ring assembly **1.25%**

COMMISSIONING OF THE UNIT

10%



ANNEXURE – SAS-I

ESSENTIAL CONDITIONS TO BE FULFILLED BY SUCCESSFUL BIDDER

01. Successful bidder has to arrange 6 copies of overhauling reports which will include various protocols with necessary data / MOMs / important correspondences / log sheets etc. and the books shall be spiral bound with thick acetate papers in front and back along with BHEL logo printed suitably on thick art paper at the front.
02. Bidder has to arrange to provide PC with colour printer and Xerox paper as required for taking print out compatible with WINDOW 1998 or, latest version loaded with necessary software, during entire period of execution of job at site, for preparing /maintaining / up keeping of various correspondences/ protocols/log sheets. etc. . PC shall be operated by PC operator conversant with AUTOCAD and other softwares to be arranged by the successful bidder within the scope . All data thus stored during the execution of job shall be transferred to external hard disc , (8 GB capacity) and handed over to Resident Manager at site after the Overhauling for submission to Customer.
03. Successful bidder is to render services for proper up-keepment of BHEL site office as required.
Full time office boy is required to be provided by the successful bidder at site for up keepment of site office.
04. After dismantling and during execution of the job, successful bidder has to suitably tag the components and sub-assemblies for trace ability and store properly before final assembly. This is as per Doc. Nos. PSER:PMX:002:94 & PSER:PMX:001:94.
05. Process control of Special Processes like Welding and Heat Treatment shall be carried by successful bidder as per Doc. Nos. PSER:QLY:001:99, PSER:QLY:001:94 (3 VOL) and PSER:QLY:003:99.
06. Proper segregation, identification, tagging and up-keep of all dismantled items at
07. Work site during job execution have to be done by successful bidder.
08. Successful bidder is to obtain necessary "No Dues" certificates before demobilisation from site.
09. Successful bidder is to comply with all the statutory and regulatory norms, rules and practices as applicable for the job/site.



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10. Successful bidder shall provide valid calibration certificates for IMTEs, fitness certificates for T&Ps and Construction Equipment (e.g. wire ropes, hand operated chain pulley blocks, pulling and lifting machines, electric welding generators, arc welding transformers etc.). Calibration of IMTEs is to be arranged from the accredited agencies. Calibration certificates should have the traceability as per national/international standards. At work site the IMTEs, T&Ps and Construction Equipment shall be checked/tested/inspected by BHEL engineers. The procedure for fitness testing and storage preservation and maintenance of Construction Equipment and T&Ps shall be as per Doc. Nos. PSER:FEX:001:94, PSER:SAS(CAL):016:95 and PSER:FEX:002:94 available with BHEL site engineers.
11. Successful bidder should follow all safety norms at work site. The Doc. No. PSER:PMX:004:94 in this regard is available with BHEL engineer at site.
12. Any NDT within the scope shall be as per Non-Destructive Examination manual (Doc. No. PSER:QLY:002:99 available with BHEL site engineer.
13. Provision of hygienic filtered drinking water facility at BHEL site office.
14. The successful bidder is to arrange a full set of First Aid kit for attending to manpower deployed by him at site as per requirement.
15. The successful bidder is to arrange extra illumination at work site to augment the existing site illumination if required to enable round-the-clock safe working.
16. Within the quoted price, the bidder has to arrange new set of utensils (cooking & serving) , stoves , gas cylinders / gas oven , electric heaters , chairs , tables, 21 inches colour TELEVISION etc. including cooks / helpers for preparation of food for 15 BHEL persons. The successful bidder will also be responsible for taking over and vacate the BHEL mess quarter. Bidder has to provide foods for the cook and helper.
17. Still colour photography (Max. 36 nos on Matt paper, postcard size) of different machine parts and sub-assemblies as decided by BHEL site engineer is to be arranged by successful bidder at their cost.

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ANNEXURE-II**TENTATIVE LIST OF T & P**

The list of T & P are provided hereunder to be mobilized by the contractor three days prior to the shut-down of the machine. These will be physically verified by BHEL site Engineer. BHEL has the authority to penalize the contractor suitably including termination of contract if the required T&P's are not mobilized timely. However, it may be noted that the T&P list is only a guide for bidding and any other T&P as may be required for the job has to be mobilized by the successful bidder.

Sl. No.		Quantity
	MEASURING TOOLS	
1.01	Dial Indicator with Magnetic Base	6 sets
1.02	Dial indicator – button type and LASTWARD (3 mm travel, 25 mm dia dial with links for coupling alignment)	2 set each
1.03	Slip gauge up to 10 mm	1 set
1.04	Micro-head level, accuracy 0.1 mm per metre, 150 mm long	1 no.
1.05	Square level for leveling major parts for installation (accuracy 0.1 mm, 150 mmX150 mm)	1 no.
1.06	Vernier Caliper 150 mm and 300 mm	1 no. each
1.07	Set of spring caliper and divider(150 mm)	1 set
1.08	Zenith caliper for marking (150 mm)	1 no.
1.09	Steel Scale 150 mm, 300 mm, 1000 mm	2 nos each
1.10	Telescopic gauge up to 150 mm	1 set
1.11	Bore dial gauge up to 75 mm	1 set
1.12	Inside micrometer up to 1500 mm	1 set
1.13	Outside micrometer	2 nos
	0-25 mm	1 no.
	0-50 mm	1 no.
	50-200 mm	1 no.
	200-300 mm	1 no.
	300-400 mm	1 no.
	400-500 mm	1 no.
1.14	Taper Gauge up to 20 mm	1 no.
1.15	Taper gauge 0.1 – 10 mm	1 no
1.16	Feeler gauge 100 mm, 200 mm, 300 mm long (from 0.03 to 1.0 mm thick)	1 set each
1.17	Feeler strip 0.03 mm, 0.04 mm, 0.05 mm, 0.10 mm X 300 mm long	5 each
1.18	Thread Gauge M4 to M56	1 set
1.19	Depth micrometer 0-25 mm	1 no.
1.20	Surface plate 300 mm X 300 mm	1 no.
1.21	Combination set	1 no.
1.22	Ball pen gauge for 3 to 10 mm bore	1 set
1.23	Measuring steel tape 3 M, 15 M	2 each
1.24	500 V hand / motorized megger	1 no.
1.25	1000 V hand / motorized megger	1 no.
1.26	250 V megger	1 no.
1.27	3 1/2 Digit digital multimeter	1 no.

CUTTING TOOL

2.01	Tap set M 5 to M42 (including M27 & m 33)		1 set each
2.02	Die set M 14 to M 65		1 set each
2.03	Pistol Drill	6 mm	2 nos.
	-Do-	15 mm	1 no.
	-Do- with magnetic stand	19 mm	1 no.
2.04	Straight grinder GQ 4		3 nos.
2.05	Angle grinder AG 7 and AG 5		2 nos. each
2.06	Pistol grinder		1 no.
2.07	Flexible grinder with necessary accessories		2 nos.
2.08	Bench grinder 150 mm		1 no.
2.09	Hole punch up to 32 mm		1 set
2.10	Easy out up to M 24		1 set
2.11	Taper reamer up to 18 mm		1 set
2.12	Hand ratchet		2 nos.

LIFTING TOOL

3.01	Sling- 8 mm, 2.5 metre long tip to tip along with 150 mm eye at both end		1 pair
3.02	Sling 12 mm, eye at both end of 300 mm,	1.5 metre long	1 pair
		2.5 metre long	1 pair
		3.5 metre long	1 pair
3.03	Sling 19 mm, eye at both end of 450 mm,	2.0 metre long	1 pair
		3.0 metre long	1 pair
3.04	Sling 25 mm, eye at both end of 450 mm,	3.0 metre long	1 pair
		6.0 metre long	1 pair
3.05	Eye bolt 10, 12, 14 & 16		4 nos. each
3.06	Eye bolt 20, 24, 27, 36 & 42		2 nos. each
3.07	D-shackles pin dia. 10 mm, 12 mm		5 pairs each
	D-shackles pin dia. 20 mm, 25 mm, 32 mm, 36 mm & 44 mm		1 pair each
3.08	Ratchet hoist 0.5 T		1 no.
3.09	Chain block 2 T, 5 T		1 no. each
3.10	Manila rope 25 mm, 30 metre long		1 pair
3.11	Cotton rope 25 mm, 10 metre long		1 no.

OTHER T & P

4.01	Gas welding machine		1 set
4.02	Hand lamp with 30 metre cable		6 nos.
4.03	Switch board with 50 metre cord		2 nos.
4.04	Scissors-300 mm		1 set
4.05	Shim cutter – 350 mm		1 set
4.06	Magnifying glass – 75 mm dia		1 no.
4.07	Mirror with handle		1 no.
4.08	Vacuum cleaner		1 no.

4.09	Carpenter's saw	1 no.
4.10	Carpenter's chisel	3 nos.
4.11	Open "D" D.E. spanner 36X41, 41X46	2 nos. each
4.12	S.E. span "D" spanner 46, 50, 55, 65, 70, 75, 80, 85, 90, 95, 100, 105	1 no each
4.13	Slogging spanners 36, 41, 55, 65	2 nos. each
4.14	Slogging spanner 46 mm	4 nos.
4.15	Slogging spanners 50, 60, 70, 75, 80, 85, 90, 95, 100, 105	1 each
4.16	Box spanner set with straight handle, ratchet handle, universal extension piece – all heavy duty, up to 46 mm	1 set
4.17	Tubular spanner 20 to 46 mm	1 set
4.18	Allen key set 4 to 27	2 sets
4.19	Pipe wrench 150, 350 & 450 mm	1 no. each
4.20	Slide wrench 200 mm, 300 mm	2 nos. each
4.21	Spray gun for generator varnishing / painting with necessary high pressure hose	1 no.
4.22	High pressure air hose at least 30 metre long	1 no.
4.23	Tubular spanner	1 set
4.24	Gland packing remover	1 set

HAND TOOLS

5.01	Chisels (Chrome-Vanadium) 1 mm	6 nos.
5.02	Center punch (Chrome-Vanadium) small & big	1 each
5.03	Letter punch – 4 mm size	1 set
5.04	Number punch – 6 mm size	1 set
5.05	Bearing scrapper – half round and triangular	2 nos. each
5.06	Flat scrapper (made out of 1.5 inch power saw blades and pipes)	8 nos.
5.07	Hammer 250 gms., 500 gms.	1 no. each
5.08	Hammer 1 kg., 2 kg.	3 nos. each
5.09	Hammer 5 kg.	2 nos.
5.10	Hammer 8 kg.	1 no.
5.11	Copper Hammer 2 kg.	1 no.
5.12	Lead Hammer 2 kg.	1 no.
5.13	Nylon mallet	3 nos.
5.14	Needle file	2 sets
5.15	Assorted file	4 dozens
5.16	Screw driver 150 mm, 300 mm, 450 mm (Taparia make)	2 nos. each
5.17	Tommy bar 32 mm X 1 metre	1 no.
5.18	Crow bar – big and small	2 nos. each
5.19	Hole bar (Assorted size)	4 nos.
5.20	Hacksaw frame (good quality)	2 nos.
5.21	Pliers, cutting nose, grip, O/S circlip, I/S circlip	2 nos. each
5.22	Magnetic needle for dust in small holes	1 no.
5.23	Oil stone (rough and smooth)	6 nos. each

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5.24	H.S.S. 12 mm square section X 100 mm parallel bits (accurate with 0.01 mm in section)	2 nos.
5.25	Copper rod 12 mm dia., 25 mm dia., 50 mm dia., 300 mm length	1 pc. Each
5.26	Bench vice 150 mm	2 nos.
5.27	Channel lock 150 mm	2 nos.
5.28	Vice grip 150 mm	1 no.
5.29	Cutogen gas cutting set with hose, jubilee clamps and regulators	1 set
5.30	Hydraulic jacks (50 tons capacity)	4 nos.
5.31	Welding generators (with lead holder)	1 no.
5.32	Brazing torch set	1 no.

The above list of T&P's are not exhaustive but indicative only .Any shortage may be made up by the vendor as may be required for overall job completion.



ANNEXURE – III

LIST OF CONSUMABLES TO BE ARRANGED BY THE CONTRACTOR IN ADDITION TO THE NORMAL CONSUMABLES .

- | | |
|--|----------------------|
| 1) Dye penetration test kit | As may be required . |
| 2) Emery paper (fine and coarse) | As may be required . |
| 3) Emery clothes sheets. | As may be required |
| 4) Eutectic electrode L & T – 670/680 | As may be required. |
| 5) All consumables as may be required for welding , brazing , gas cutting etc. | |
| 6)Petrol ,Diesel | As may be required . |
| 7)Rustolene. | As may be required . |
| 8)25 mm thick planks X 200mm wideX 3000 mm long for keeping dismantled parts | |
| 9)Asbestos cloth and asbestos powder . | As may be required |
| 10)ACETONE. | As may be required |
| 11)Stag B , Molykote,Holdtite,M seals,Hylomar,Selastic etc. | As may be required. |

Any other consumables , supplementary requirement has to be provided by the vendor for successful completion of the job.

SPECIAL NOTE TO BIDDERS

01. LUMPSUM PRICE:

The bidders should quote lump sum price for the total scope of work mentioned in ANNEXURE – I .

Compliance to Annexure SAS – I is mandatory . If successful bidder fails for compliance of Annexure SAS I , then total expenditure towards the said items along with overhead charges shall be deducted from the successful bidder's bill.

02. Successful bidder has to submit the following documents on and during execution of the job and before clearance of last 10% bill:

- a) Labour license for the subject work.
- b) Insurance coverage of the total workers engaged for the job.
- c) Monthly wage certificate of the total work force.
- d) EPF for the workers engaged.
- e) Submit safety plan.
- f) Submit bar chart / job completion schedule as & when asked for.

Successful bidder has to obtain "No Objection Certificates" from concerned deptts and P&A deptt of customer.

The scope under the specification (as per Annexure –I of scope of work) is not exhaustive but indicative only. However, any activity covered under the normal course of capital overhauling of the turbine generator of unit no. 5, 210 MW set at KTPS / WBPDCCL , shall be deemed to be within the scope.

Transportation of materials from KTPS /WBPDCCL site stores to work spot as per requirement and also transportation of the T&P's / Instruments for RLA studies and overhauling purposes from BHEL-CAL HQ / OTHER Eastern Region SITES to KTPS & back , is included in the scope of the vendor at their own cost. In case any part of the job is not required to be carried out, a deduction will be effected as per percentage shown against those items.

03. Vendor has to arrange sufficient no EOT crane operators within the quoted price during entire duration of work.

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04. Within the quoted price of the vendor , the vendor has to arrange agency along with equipment to carry out the following test : HARDNESS TESTING FOR FASTENERS ABOVE M64 .TAN-DELTA TEST, RSO TEST, PD TEST, PURGE TEST, UT and other various testing equipment along with operator as specified in scope.
05. The vendor has to strictly comply with the SAFETY RULES & procedures of the KOLAGHAT THERMAL POWER STATION / WBPDC. It is suggested that the prospective bidders may visit & contact KTPS/WBPDC to know further details of their safety rules before quoting their price. The successful bidder has to mobilize at site with sufficient manpower for different areas for round the clock working in 12 hours shifts (More than 12 hr working per day per employee is strictly prohibited at site) .
- 06 Disposal of scrap/ waste/ insulation generated while overhauling work to be disposed off at predetermined place as indicated by KTPS/WBPDC by the bidder including transportation of the waste.
07. Defect liability period against bad workmanship shall be 6 (six) months from the date of synchronization of the machine. During this period if any re work are required to be carried out, then the same are to be done by the successful bidder. The successful bidder shall be responsible for timely execution and quality of overhauling job and stand guarantee against any defect due to bad workmanship. Once defect is registered within defect liability period , the successful bidder has to rectify the same free of cost during next available opportunity without any time limitation.



HSE & OHSAS

1.0	<p>OCCUPATIONAL HEALTH, SAFETY & ENVIRONMENT MANAGEMENT/ QUALITY ASSURANCE PROGRAMME : BHEL, Power Sector Regions (PSNR/ER/WR/SR) are each certified for ISO 9001. Quality of work to customer's satisfaction and fulfillment of system requirements are the essence of ISO 9001 certification. BHEL, PS Regions have HSE certification (ISO 14001 & OHSAS 18001) and therefore Contractor also shall organize / plan/ perform all their activities to meet with the applicable requirements of these standards.</p>
1.1	<p>HSE (Health, safety & Environment): Contractor will comply with HSE (Health, safety & Environment) requirements of BHEL. HSE requirements in brief, are given below :-</p>
1.1.1	<p>Contractor will nominate one of their qualified and experienced employees as Safety Officer, who will be responsible for all HSE related issues of contractors work area. Safety Officer will have authority to stop any activity, in case he observes that the activity is not being carried out in safe manner. He will conduct surprise inspection as well as periodic inspection/drill (at least once in a Week) and submit such reports to BHEL. He will conduct periodic meetings with working groups and explain HSE issues and use of PPEs to them. Reports of such meetings will be submitted to BHEL. Contractor will develop suitable work procedures based upon HSE guidelines and OCPs and implement it. Such work procedures will consist of Area of work, T&P Details, Work Procedure, PPE requirements etc.</p> <p>Contractor should highlight the requirement of safety to staff and labour through daily tool box meeting before start of the days job</p>
1.1.2	<p>The contractor shall ensure that proper job specific health check-up is done by medical professional for their employees during initial mobilization and thereafter if there is any change of job.</p>
1.1.3	<p>Following personnel protective equipments (PPEs), in adequate numbers, will be made available at site & their regular use by all concerned will be ensured :-</p> <ul style="list-style-type: none"> - HELMET - SAFETY GOGGLES & WELDING FACE SHIELDS - SAFETY BELTS AND PROTECTIVE NET FOR WORKING AT HEIGHT - SAFETY SHOES - EAR PLUG - ANY OTHER SAFETY EQUIPMENT REQUIRED FOR SAFE COMPLETION OF THE WORK

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HSE & OHSAS

1.1.4	Providing appropriate First Aid facilities for prompt treatment of injuries and illness at work place. Arranging training to contractor workmen/ employees for giving first aid.
1.1.5	Arranging ambulance in case of any emergency situation .
1.1.6	Identification of nearest hospital and health check-up of workmen/employees
1.1.7	Providing filtered drinking water at work place in cool container.
1.1.8	Providing appropriate fire fighting equipment at designated work place and nominate a fire officer/warden adequately trained for his job.
1.1.9	Identification of nearest fire station and display contact telephone nos. / person's name around work places for cases of emergencies .
1.1.10	Providing adequate no. of 24 V sources and ensure that no hand lamps are operating at voltage level above 24 Volts.
1.1.11	Fulfilling safety requirements at all power tapping points.
1.1.12	Red & White caution tape of proper width(1.5 to 2 inch) to be used for cordoning unsafe area such as open trench, excavation area etc.
1.1.13	Providing contractors company logo on cloths /uniform/ proper identity cards with photographs, for correct identification of people working at project site .
1.1.14	High/ Low pressure welders to be identified with separate colour clothings. No welders will be deployed without passing appropriate tests and holding valid welding certificates. Approved welding procedure should be displayed at work place.
1.1.15	Displaying safe handling procedures for all chemicals such as lube oil, acid, alkali, sealing compounds etc , at work place .
1.1.16	All scaffolding/ platforms should be made from materials of appropriate quality/grade so that these are safe for use. It should be certified/declared safe for use by an experienced contractor person, before any scaffolding/platform is used.
1.1.17	All T&Ps/ MMEs should be of reputed brand/appropriate quality & must have valid test/calibration certificates bearing endorsement from competent authority of BHEL.
1.1.18	Ensure that the regulatory requirement of excessive weight limit (to carry/lift/ move weights beyond prescribed limits) for male and female workers are complied with.
1.1.19	Safety slogan, Safety/ Caution boards , wherever required to be displayed in consultation with BHEL.

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1.1.20	Take suitable measures for waste management and environment related laws/legislation as a part of normal construction activities. Compliance with the legal requirements on storage/ disposal of paint drums (including the empty ones), Lubricant containers, Chemical Containers, and transportation and storage of hazardous chemicals will be strictly maintained. Ensure proper cleanliness of work place, housekeeping and waste management (including proper waste disposal) on daily basis.
1.1.21	The Contractor is required to provide proper safety net systems where ever the hazard of fall from height is present as per instruction of BHEL Engineer. The safety nets shall be fire resistant, duly tested and shall be of ISI Mark and the nets shall be located as per site requirements to arrest or to reduce the consequences of a possible fall of persons working at different heights.
1.1.22	All applicable OCPs (Operational control procedures) will be followed by contractor as per BHEL instructions. This will be done as part of normal scope of work. List of such OCPs is given below . In case any other OCP is found to be applicable during the execution of work at site, then contractor will follow this as well, within quoted rate. These OCPs (applicable ones) will be made available to contractor during work execution at site. However for reference purpose, these are kept with Safety Officer of BHEL at the Power Sector Regional HQ, or available in downloadable format in the website, which may be refereed by contractor, if they so desire.
	OCP for safe handling of chemicals
	OCP for Electrical safety
	OCP for energy conservation
	OCP for safe welding and gas cutting operation
	OCP for fire safety
	OCP for safety in use of hand tools
	OCP for first aid
	OCP for food safety at canteen
	OCP for safety in use of cranes
	OCP for storage and handing of gas cylinders

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OCP for manual arc welding
OCP for safe use of helmets
OCP for good house keeping
OCP for working at height
OCP for safe excavation
OCP for safe filling of Hydrogen in cylinder
OCP for illumination
OCP for handling and erection of heavy metals
OCP for safe acid cleaning
OCP for safe alkali boil out
OCP for safe oil flushing
OCP for steam blowing
OCP for safe working in confined area
OCP for safe operation of passenger lift, material hoists & cages
OCP for Vehicle maintenance
OCP for safe radiography
OCP for waste disposal
OCP for working at night
OCP for blasting
OCP for DG Set
OCP for handling & storage of mineral wool
OCP for drilling, reaming and grinding(machining) etc.
OCP for hydraulic test
OCP for spray insulation
OCP for trial run of rotary equipment
OCP for stress relieving
OCP for material preservation
OCP for cable laying/tray work
OCP for electrical maintenance
OCP for transformer charging
OCP for safe handling of battery system
OCP for computer operation
OCP for storage in open yard
OCP for sanitary maintenance
OCP for batching
OCP for piling rig operation
OCP for gas distribution test

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	OCP for cleaning of hotwell / deaerator
	OCP for electro-resistance heating
	OCP for compressor operation
	OCP for O&M of control of AC plant & system
	OCP for air compressor
	OCP for passivation
	OCP for Safe EDTA Cleaning
	OCP for Safe Chemical cleaning of Pre boiler system
	OCP for Safe Boiler Light up
	OCP for Safe Rolling and Synchronisation
	OCP for Safe Loading of Unit
1.2	<p>SAFETY AND CLEANLINESS :</p> <p>The contractor shall take all necessary safety precautions and arrange for appropriate appliances as per discretion of BHEL or its authorised officials (Site Construction Manager) to prevent loss of human lives, injuries, to personnel engaged and damage to property. Before commencing the work, the contractor shall submit a "Safety Plan" to the above authorised BHEL official and obtain approval on the same. The safety plan shall indicate in detail the measures that would be taken by the contractor to ensure safety of men, equipment, materials and environment during execution of the work. This will also include an organization structure, role and responsibilities of the concerned key personnel, the safety practices that will be followed, PPEs deployed, plan for handling critical activities and emergencies.</p>
1.3	If the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions issued by the authorised BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor.
1.4	During the course of construction, alternation or repairs, scrap with protruding nail, sharp edge etc and all other debris shall be kept clean from working areas, passage, ways and stairs in and around site.
1.5	Combustible scrap and debris shall be removed at regular intervals during the course of execution. Safe means shall be provided to facilitate such removal. The combustible scrap should be stored in safe place away from the plant materials to avoid fire accidents. The area shall be chosen in consultation with the Engineer and to be cordoned off.
1.6	Rigging equipment for materials handling shall be inspected prior to use in each shift and as necessary during its use to ensure that it is safe. Defective

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	rigging equipment will be removed from service.
1.7	Rigging equipment shall not be loaded in excess of its recommended safe working load. Rigging equipment, when not in use, shall be removed from the original work area so as not to present a hazard to employees.
1.8	Contractor shall notify the engineer, of his intention to bring on to site any equipment or any container, with liquid or gaseous fuel or other substance which may create a hazard. The Engineer shall have the right to prescribe the condition under which such equipment or container may be handled and used during the performance of the works and the contractor shall strictly adhere to such instructions. The Engineer shall have the right to inspect any construction tool and to forbid its use, if in his opinion it is unsafe. No claim due to such prohibition will be entertained.
1.9	Where it is necessary to provide and/or store petroleum products or petroleum mixture & explosives, the contractor shall be responsible for carrying out such provision / storage in accordance with the rules & regulations laid down in the relevant petroleum act, explosive act and petroleum and carbide of calcium manual, published by the chief inspector of explosives of India. All such storage shall have prior approval if necessary from the chief inspector of explosives or any other statutory authority. The contractor shall be responsible for obtaining the same.
1.10	Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dragged, struck or permitted to strike each other violently.
1.11	When cylinders are transported by powered vehicle they shall be secured in a vertical position.
1.12	All workmen of the contractor working on construction area shall wear safety shoes, hand gloves, safety helmets and safety belt as applicable. The contractor shall provide to its workforce and ensure the use of following personnel protective equipment as found necessary and as directed by BHEL.
1.12.1	Safety Helmets conforming to IS-2965 : 1984
1.12.2	Safety Belts conforming to IS-3521:1983
1.12.3	Safety Shoes conforming to IS-1989 : 1978
1.12.4	Eye and face protection devices conforming to IS – 8620 : 1977 & IS – 8950 : 1978.

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1.12.5	Hand and body protection devices conforming to IS – 2575 : 1975 and IS – 6994 : 1973, IS – 8907 : 1970 & 8619 : 1977
1.13	The contractor shall insure his workmen against all accidents and the policy shall be presented to BHEL Engineer on demand. Other wise, BHEL will arrange the same and the expenditure towards this will be debited to the contractor. In case of a fatal or disabling injury accident to any person at construction site due to lapses by the contractor, the victim and/or his/her dependants shall be compensated by the contractor as per statutory requirements. However, if considered necessary BHEL shall have the right to impose appropriate financial penalty on contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependence before imposing any such penalty. Appropriate enquiry shall be held by BHEL giving opportunity to the contractor for presenting his case. Above safety conditions are not exhaustive but gives an idea for the contractor and contractor shall adhere to all safety precaution given by the Engineer at site.
1.14	The contractor shall arrange at his cost adequate lighting facilities e.g. flood lighting, hand lamps, area lighting etc. at various levels for safe and proper working operations during night hours at the work spot as well as at the pre-assembly area.
1.15	The contractor shall be responsible for provision of all the safety notices and safety equipment as enjoined on him by the application of relevant statutory regulation / provisions and/or as called upon by BHEL from time to time. He shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instruction that may endanger safety of men, equipment and material.
1.16	The contractor shall provide temporary fencing wherever required as a safety measure against accident and damage to properties. Suitable caution notices shall be displayed where access to any part is found to be unsafe and hazardous.
1.17	Contractor shall ensure safety of all the workmen, material and equipment either belonging to him or to others working at site. He shall observe safety rules and codes applied by BHEL without exception.
1.18	It will be the responsibility of the contractor to ensure safe lifting of the equipment, taking due precaution to avoid any accident and damage to other equipment and personnel. All requisite tests and inspection of handling

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	equipment, tools & tackle shall be periodically done by the contractor. Defective equipment shall be removed from service. Any equipment shall not be loaded in excess of its recommended safe working load.
1.19	The contractor shall provide necessary first aid facilities for all his employees, representatives and workmen at site and BHEL shall have no obligation in this regard. The first aid boxes should be placed at various elevations so as to make them available within the reach and at the quickest possible time. The contractor should conduct periodical first –aid classes to keep his supervisor and Engineers properly trained for attending to any emergency.
1.20	All the contractor's supervisory personnel and sufficient number of workers shall be trained for fire protection systems. Enough number of such trained personnel must be available during the tenure of contract. Contractor should nominate his supervisor to coordinate and implement the safety measures.
1.21	Contractor shall provide enough fire protecting equipment of the types and numbers at his office, stores, temporary structure in labour colony etc. Such fire protection equipment shall be easy and kept open at all times. The fire extinguishers shall be properly refilled and kept ready which should be certified at periodic intervals. The date of changing should be marked on the Cylinders. All other fire safety measures as laid down in the "codes for fire safety at construction site" issued by safety coordinator of BHEL shall be followed. Non-compliance of the above requirement under fire protection shall in no way relieve the contractor of any of his responsibility and liabilities to fire accident occurring either to his materials or equipment or those of others.
1.22	The contractor shall at his cost, remove from vicinity of work at least once each day all combustible waste, scrap, panting materials, rubbish, unused or other materials and deposit them in places specified by BHEL to keep the work site clear and tidy. Use of undercoated canvas paper, corrugated paper, fabricated carton, plastic or other flammable materials shall be restricted to the minimum and promptly removed.
1.23	The contractor shall not use any hand lamp energized by Electric power with supply voltage of more than 24 volts in confined spaces like inside water boxes, turbine casings, condensers etc.
1.24	All portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed. Only electricians licensed by appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works.

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1.25	In case of any delay in completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have the right to recover cost of such delay from the payments due to the contractor, after notifying the contractor suitably.
1.26	Valve protection caps shall be kept in place and secured.
1.27	The contractor shall be responsible for the safe storage and handling of his radio-active sources as per BARC rules and regulations.
1.28	Tarpaulin being inflammable should not be used (instead, only non infusible covering materials shall be used) as protective cover while preheating, welding, stress relieving etc. at site.
1.29	If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given reasonable opportunity to do so and/or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instruction regarding safety issued by BHEL, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than 7 days indicating the steps that would be taken by BHEL.
1.30	If the contractor succeeds in carrying out its job in time with out any fatal or disabling injury accident and without any damage to property BHEL may, at its sole discretion, favorably consider to reward the contractor suitably for the performance.
1.31	The contractor shall carefully follow the safety requirement of BHEL/ the purchaser with the regard to voltages used in critical areas.
1.32	The contractor shall use only properly insulated and armored cables which conform to the requirement of Indian Electricity Act and Rules for all wiring, electrical applications at site. BHEL reserves the right to replace any unsafe electrical installations, wiring, cabling etc. at the cost of the contractor. All electrical appliances used in the work shall be in good working condition and shall be properly earthed. No maintenance work shall be carried out on live equipment. The contractor shall maintain adequate number of qualified electricians to maintain his temporary electrical installations.
1.33	The contractor shall arrange adequate number of persons specifically for clearing any debris and for house keeping of the erection area including restacking of components in the erection areas.

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HSE & OHSAS

1.34	In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover the cost of such damages from the contractor after holding an appropriate enquiry.
1.35	The contractor shall submit report of all accidents, fires and property damage etc to the Engineer immediately after such occurrence, but in any case not later than 24 hours of the occurrence. Such reports shall be furnished in the manner prescribed by BHEL. In addition periodic reports on safety shall also be submitted by the contractor to BHEL from time to time as prescribed by the Engineer.
1.36	Before commencing the work, the contractor shall appoint/nominate a responsible person to supervise implementation of all safety measures and liaison with his counterpart of BHEL.
1.37	Suitable scaffolds shall be provided for workman for all works that cannot safely be done from the ground, or from solid construction except in the case of short duration of work which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made of steel. The steps shall have a minimum width of 45 cm and a maximum rise of 30 cm. Suitable handholds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ horizontal and 1 vertical.
1.38	Scaffolding or staging more than 3.6 m above the ground floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly bolted, braced or otherwise secured, at least 90 cm above the floor or platform of such scaffolding or staging and extending along the entire length of the out side and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from savor, from swaying, from the building or structure.
1.39	Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and if the height of the platform gangways provided is more than 3.6 m above ground level or floor level, they shall be closely boarded and shall have adequate width which shall not be less than 750 mm and be suitably fenced as described above.
1.40	Every opening in the floor or a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm.

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1.41	Wherever there are open excavation in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.
1.42	Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m in the length while the width between side rails in rung ladder shall in no case be less than app. 29.2 cm for ladder upto and including 3 m in length. For longer ladders this width shall be increased at least ¼" for each additional foot of length.
1.43	A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer obtained prior to Construction.
1.44	All personnel of the Contactor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal worker shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses.
1.45	Adequate precautions shall be taken to prevent danger for electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.
1.46	All trenches, four feet or more in depth, shall at all times be supplied with at least one ladder for each 30 m in length or fraction thereof. The ladder shall be extended from bottom of the trench to at least 90 cm above the surface of the ground. Sides of the trenches which are 1.50 m or more in depth shall be stepped back to give suitable slope or securely held by timer bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
1.47	The Contactor shall take all measures at the sites of the work to protect all persons from accidents and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law that may be brought by any persons for injury sustained or death owing to neglect of the above precautions and to pay any such persons such compensation or which may with the consent of the Contractor be paid to compromise any claim by any such person should such claim proceeding be filed against BHEL, the Contractor hereby agrees to indemnify BHEL against the same.
1.48	Before any demolition work is commenced and also during the process of the

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	work the following shall be ensured:
1.48.1	All roads and open areas adjacent to the work site shall either be closed or suitably protected.
1.48.2	No electric cable or apparatus which is liable to be a source of danger nor a cable or an apparatus used by the operator shall remain electrically charged.
1.48.3	All practical steps shall be taken to prevent danger to persons employed from the risks of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render them unsafe.
1.49	All necessary personnel safety equipment as considered adequate by the Engineer should be kept available for the use of the persons employed in the Site and maintained in a condition suitable for immediate use and the Contactor should take adequate steps to ensure proper use of equipment by those concerned.
1.49.1	Workers employed on mixing asphalted materials, cement and lime mortars shall be provided with protective foot wear and protective goggles.
1.49.2	Those engaged in white washing and mixing or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles.
1.49.3	Those engaged in welding works shall be provided with welder's protective eyesight lids.
1.49.4	Stone breakers shall be provided with protective goggles and protective clothing and seated sufficient to safe intervals.
1.49.5	Where workers are employed in sewers and manholes, which are in use, the Contractor shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into manhole, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
1.49.6	The Contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precautions should be taken.
1.49.6.1	No paint containing lead or lead products shall be used except in the form of paste or ready made paint.

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1.49.6.2	Suitably face masks should be supplied for use by the workers where paints are applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
1.49.6.3	Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.
1.50	When the work is being done near any place where there is risk of drowning all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.
1.51	Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safe guards. Hoisting appliance should be provided with such means as will reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers employed on electrical installations which are already energized, insulting mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductor of electricity.
1.52	All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near the places of work.
1.53	The contractor shall maintain and ensure necessary safety measures as required for inspection and tests HV test, Pneumatic test, Hydraulic test, Spring test, Bend test etc as applicable, to enable. inspection Agency for performing Inspection. If any test equipment is found not complying with proper safety requirements then the Inspection Agency may withhold inspection, till such time the desired safety requirements are met.
1.54	The Contractor shall notify BHEL of his intention to bring to site any equipment or material which may create hazard. BHEL shall have the right to prescribe the conditions under which such equipment or materials may be handled and the contractor shall adhere to such instructions. BHEL may prohibit the use of any construction machinery, which according to him is unsafe. No claim for compensation due to such prohibition will be entertained by BHEL.



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1.55	All safety precautions shall be taken for welding and cutting operations as per IS-818. All safety precautions shall be taken for foundation and other excavation marks as per IS-3764.																	
1.56	These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent, place at work spot. The persons responsible for compliance of the safety code shall be named therein by the Contractor.																	
1.57	To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangement made by the contract shall be open to inspection by the Engineer of the Engineer's Representative.																	
1.58	Keeping the work area clean/ free from debris, removed scaffoldings, scraps, insulation/sheeting wastage /cut pieces, temporary structures, packing woods etc. will be in the scope of the contractor. Such cleanings has to be done by contractor within quoted rate, on daily basis by an identified group. If such activity is not carried out by contractor / BHEL is not satisfied, then BHEL may get it done by other agency and actual cost alongwith BHEL overheads will be deducted from contractor's bill. Such decisions of BHEL shall be binding on the contractor.																	
1.59	Notwithstanding the above clauses there is nothing to exit the Contractor from the operations of any other Act or Rule in force in area of work in this respect. Provided always that all safety measures apart from those specifically provided in this agreement which are brought to the notice of the Contractor from time to time by the Engineer shall be complied by the Contractor. Provided further that all consequences, damages, or losses arising by reason of any safety code shall be met with by the Contractor.																	
1.60	<p><u>NON COMPLIANCE:-</u> NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND BHEL HAS RIGHT TO IMPOSE FINES ON THE CONTRACTOR AS UNDER <u>for every instance of violation noticed:</u></p> <table border="1"> <thead> <tr> <th>SN</th> <th>Violation of Safety Norms</th> <th>Fine (in Rs)</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>Not Wearing Safety Helmet</td> <td>50/-</td> </tr> <tr> <td>02.</td> <td>Not wearing Safety Belt</td> <td>100/-</td> </tr> <tr> <td>03.</td> <td>Grinding Without Goggles</td> <td>50/-</td> </tr> <tr> <td>04.</td> <td>Not using 24 V Supply For Internal Work</td> <td>500/-</td> </tr> </tbody> </table>			SN	Violation of Safety Norms	Fine (in Rs)	01	Not Wearing Safety Helmet	50/-	02.	Not wearing Safety Belt	100/-	03.	Grinding Without Goggles	50/-	04.	Not using 24 V Supply For Internal Work	500/-
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	05.	Electrical Plugs Not used for hand Machine	100/-
	06.	Not Slings property	200/-
	07.	Using Damaged Sling	200/-
	08.	Lifting Cylinders Without Cage	500/-
	09.	Not Using Proper Welding Cable With Lot of Joints And Not Insulated Property.	200/-
	10.	Not Removing Small Scrap From Platforms	200/-
	11.	Gas Cutting Without Taking Proper Precaution or Not Using Sheet Below Gas Cutting	200/-
	12.	Not Maintaining Electric Winches Which are Operated Dangerously	500/-
	13.	Improper Earthing Of Electrical T&P	500/-
	14.	Accident Resulting in Partial Loss in Earning Capacity	25,000/- per victim
	15.	Fatal Accident/Accidents Resulting in total loss in Earning Capacity	1,00,000/ - per victim
	Any other non-conformity noticed not listed above will also be fined as deemed fit by BHEL. The decision of BHEL engineer is final on the above. The amount will be deducted from running bills of the contractor. The amount collected above will be utilized for giving award to the employees who could avoid accident by following safety rules. Also the amount will be spent for purchasing the safety appliances and supporting the safety activity at site.		
1.61	CITATION:- If safety record of the contractor in execution of the awarded job is to the satisfaction of safety department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job		
1.62	<p>MEMORANDUM OF UNDERSTANDING</p> <p>After Award Of Work, Contractors Are Required To Enter Into A Memorandum Of Understanding As Given Below:</p> <p style="text-align: center;">Memorandum of Understanding</p> <p>$\frac{3}{4}$ BHEL, Power Sector _____ Region is committed to Health, Safety and Environment Policy (EHS Policy).</p> <p>$\frac{3}{4}$ M/s _____ do hereby also commit to the same</p>		

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	<p>EHS Policy while executing the Contract Number _____</p> <p>$\frac{3}{4}$ M/s _____ shall ensure that safe work practices not limited to the above are followed by all construction workers and supervisors. Spirit and content therein shall be reached to all workers and supervisors for compliance.</p> <p>$\frac{3}{4}$ BHEL will be carrying out EHS audits twice a year and M/s _____ shall ensure to close any non-conformity observed/reported within fifteen days.</p> <p>Signed by authorized representative of M/s -----</p> <p>Name :</p> <p>Place & Date:</p>
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ANNEXURE-VII

**BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR EASTERN REGION
KOLKATA**

PRICE SCHEDULE

WORK: "CAPITAL OVERHAULING OF TURBINE, GENERATOR & ASSOCIATED WORKS FOR UNIT-5, 210 MW (LMW DESIGN), KOLAGHAT TPS, WBDCL, WEST BENGAL".

Tender No. PSER: PUR: KGT-S151:14 :(ENQ:14:PP:0015:PUR:40) DATE 20/06/2014.

PRICE: (TO QUOTE LUMP SUM AND FIRM PRICE ONLY IN INTERNATIONAL NUMERALS AND ENGLISH WORDS BREAK UP NOT TO BE SHOWN UNLESS AND OTHERWISE SPECIFICALLY ASKED FOR)

SL NO	DESCRIPTION OF WORK	QUANTITY	LUMP SUM AND FIRM PRICE (IN RS) INCLUDING ALL TAXES & DUTIES BUT EXCLUDING SERVICE TAX
1	"CAPITAL OVERHAULING OF TURBINE, GENERATOR & ASSOCIATED WORKS FOR UNIT-5, 210 MW (LMW DESIGN), KOLAGHAT TPS, WBDCL, WEST BENGAL".	01 LOT	RS. (IN FIGURE): _____ RUPEES.(IN WORDS): _____ _____ _____
2	TOTAL AMOUNT : (IN FIGURE & WORDS):		

NOTE: EVALUATION OF BID SHALL BE BASED ON "LUMP SUM AND FIRM PRICE (IN RS) INCLUDING ALL TAXES & DUTIES BUT EXCLUDING SERVICE TAX"

SIGNATURE OF THE TENDERER & DATE:

NAME, DESIGNATION & SEAL:

ANNEXURE-A

1	Suspension of business dealing with Suppliers Depending upon the gravity of the omission or commission by the Supplier, the Supplier may be either put on hold for future enquiries for specific material category/ item or delisted or banned as detailed hereinafter.
2.0	Hold A Supplier may be put on hold for future enquiries for specific material category/ items/ works for a specific unit on the basis of one or more of the following reasons:
2.1	Before placement of order, Supplier does not honour his own offer or any of its conditions within the validity period.
2.2	In the last three consecutive supplies of a specific material category, average quality rating as at the end of the previous calendar month falls below 80% of the quality weightage. This is irrespective of supplies against PO(s) having single/ multiple delivery schedules.
2.3	Two consecutive delays, for reasons of delay attributed to the Supplier, in execution of the contracts where delay occurred is such that a) prescribed maximum LD time limits of the contracts is reached/ exceeded or b) delay period has equaled/ exceeded the original delivery period specified in the contracts whichever among the above is earlier.
2.4	Supplier performance rating in line with SEARP falls below 60% of the specific material category.
2.5	Supplier fails to respond against three consecutive tenders. ('Regret letter' from the Supplier is to be considered as response)
2.6	Supplier fails to settle any outstanding on account of material (including short return)/ scrap or on any other account.
2.7	Supplier works are under strike/ lockout for a period of more than six months.
3.0	De-listing A Supplier may be de-listed i.e. removed from the list of registered Suppliers of a Unit for all categories of material on the basis of one or more of the following reasons:
3.1	Supplier in any way tampers with tendering procedure affecting ordering process.
3.2	Supplier has misused BHEL documents/ drawings or has breached the confidentiality agreement with BHEL.
3.3	After placement of order, Supplier fails to execute the contract.
4.0	Banning A Supplier can be banned from doing any business with all Units of BHEL on the basis of receipt of evidence of one or more of the following reasons:
4.1	Supplier is found to be responsible for submitting fake/ false/ forged documents, certificates, or information or has resorted to unethical, illegal means in getting the contract.
4.2	In spite of warnings, the Supplier persistently violates or circumvents the provisions of labour laws/ regulations/ rules and other statutory requirements.
4.3	Supplier is found to be involved in cartel formation or in any act so as to influence the bidding process or influence the price.
4.4	The Supplier has indulged in malpractices or misconduct such as bribery, corruption and fraud, pilferage etc.
4.5	The Supplier is found guilty by any court of law for criminal activity/ offences involving moral turpitude in relation to business dealings.
4.6	The Supplier is declared bankrupt, insolvent, has wound up or been dissolved; i.e. ceases to exist for all practical purposes.
4.7	Supplier is found to have obtained any internal information/ documentation of BHEL by unauthorized means.
4.8	A decision has been taken by the administrative ministry of the Government to ban business dealings with a Supplier and such decision has been communicated to BHEL.
4.9	The foreign Principals along with the representing Agent shall be banned together if information submitted by them about their precise relationship, commission/ remuneration etc. payable/ receivable and other particulars as asked by BHEL, as per the extant guidelines regarding dealing with Agents of Foreign Suppliers is found false/ incorrect.
4.10	Supplier has substituted, damaged, failed to return, or unauthorizedly disposed off free issue materials/ tools etc. of BHEL.
5.0	Contracts already entered with a contractor before the date of issue of order of 'HOLD' or 'DE-LISTING' shall not be affected.
6.0	All existing contracts with a 'BANNED' contractor shall normally be short closed
7.0	Once the order for banning is passed, existing offers/ new offers of the Supplier shall not be entertained.
8.0	The above guidelines are not exhaustive but enunciate broad principles governing action against contractors

ANNEXURE-B

Certificate by Chartered Accountant on letter head

This is to Certify that M/S
.....,
(hereinafter referred to as 'company') having its registered office at
..... is registered under MSMED Act 2006, (Entrepreneur
Memorandum No (Part-II)
dtd:..... ,
Category: (Micro /Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year as per MSMED Act 2006 is as follows:

1. For Manufacturing Enterprises: Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No.S.O.1722(E) dated October 5, 2006 :

Rs..... Lacs

2. For Service Enterprises: Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:

Rs..... Lacs

(Strike off whichever is not applicable)

The above investment of Rs Lacs is within permissible limit of Rs..... ..Lacs for..... Micro / Small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/ Small) (Strike off which is not applicable) and the date of graduation of such enterprise from its original category is (dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise from its original category as notified vide 5.0. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name-

Membership number -

Seal of Chartered Accountant

DECLARATION FOR RELATION IN BHEL

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: **Declaration for relation in BHEL**

Ref : 1) NIT/Tender Specification No:

I/We hereby submit the following information pertaining to relation/relatives of Proprieter/Partner(s)/Director(s) employed in BHEL.

Tick (✓) any one as applicable:

1. The Proprietor, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprietor, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

(i)

(ii)

Signature of the Authorized Signatory

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable against the Bidder/Contractor.

FORMAT FOR SEEKING CLARIFICATION

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: **Request for Clarification**

Ref: 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

Sl no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's clarification
1				
2				
3				

Yours faithfully,

(Signature, date & seal of Authorized Representative of the Bidder)

FORMAT FOR SECURITY DEPOSIT CUM PERFORMANCE BANK GUARANTEE BOND
(TO BE EXECUTED ON APPROPRIATE NON-JUDICIAL STAMP PAPER)

(APPROPRIATE DATA SHALL BE FILLED-IN AGAINST THE FIELDS, SHOWN IN ITALICS & BOLD WITHIN BRACKET)

Page 01 of 02

In consideration of the BHARAT HEAVY ELECTRICALS LIMITED (a Government of India Undertaking) having its registered office at BHEL HOUSE, Siri Fort, New Delhi - 110 049 through its division at DJ-9/1 , Sector- II, Salt Lake City, Kolkata- 700 091 (hereinafter called 'the Company') having agreed to exempt (hereinafter called 'the said Contractor/s') from the demand, under the terms and conditions of an Agreement arising out of Letter of intent/work order issued under no. _____, dated _____, made between the Company and Contractor for **(NAME OF WORK)** (hereinafter called 'the said Agreement') of Security Deposit for the due fulfillment by the said Contractor/s of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. _____ (Rupees _____ only), we **(NAME OF BANK WITH BRANCH NAME & FULL ADDRESS)**, (hereinafter referred to as 'the Bank') at the request of (CONTRACTOR/s) do hereby undertake to pay to the Company an amount not exceeding As (Rupees _____ only) against any ***loss or damage caused to or suffered or would be caused to or suffered by the company by reason of*** (DEFAULT IN THE PERFORMANCE OR) any breach by the said Contractor/s of any of the terms or conditions contained in the said Agreement.

01. We **(NAME OF BANK)** do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the company stating that the amount claimed is due by way of ***loss or damage caused to or suffered or would be caused to or suffered by the company by reason of*** (DEFAULT IN THE PERFORMANCE OR) breach by the said Contractor/s of any of the terms or conditions contained in the said agreement or by reason of the Contractor's/s' failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rupees _____ only).

02. We undertake to pay to the company any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s)/Supplier(s) in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the Contractor(s)/Supplier(s) shall have no claim against us for making such payment.

03. We, **(NAME OF THE BANK)** further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid & its claims satisfied or discharged or till the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by said Contractor(s) and accordingly, discharges this guarantee. Unless, a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all liability under this guarantee therein after.

04. We, **(NAME OF THE BANK)** further agree with the Company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or commission on the part of the Company or any indulgence by the Company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
05. This guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s), Supplier (s).
06. The guarantor hereby declare that it has power to execute this guarantee and the executants has full power to do so on its behalf under the proper authority granted to him I them by the guarantor.
07. We, **(NAME OF THE BANK)** lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing.

Dated the day of

Witness:

(NAME OF THE BANK)

Note: Expiry date to be shown in Sl.-3 above should not be earlier than 60 days after the date contemplated under the contract.

RTGS FORMAT

Form for getting payment through RTGS (Real Time Gross Settlement)

01. NAME OF VENDOR
02. ADDRESS
03. VENDOR'S BANK A/C NAME
04. VENDOR'S BANK A/C NO.
05. NAME OF BANK
06. NAME OF BRANCH
07. BRANCH PH. NO.
08. CITY
09. IFSC CODE OF THE BRANCH

THE CHARGES IF ANY FOR PAYMENT THROUGH RTGS MAY BE RECOVERED FROM THE BILL SUBMITTED BY US.

SIGNATURE OF AUTHORISED REPRESENTATIVE
OF VENDOR WITH DATE & SEAL

CONFIRMATION BY BANKER WITH
OFFICE SEAL

Note : Incorrect information will create accounting complications and payment will be delayed.



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SECTION – I

**Instructions to Tenderers
GENERAL INSTRUCTION TO TENDERERS**

1.1 Submission of Tender in “Three Parts”.

- (1) Technical Tender : All particulars asked for from the Vendor except the Price Bid & E.M.D in an envelope.
- (2) EMD in a sealed envelope clearly superscribing on the envelope “E.M.D”, the Tender Number, Name of Work, addresses of Vendor and addressee. One time EMD holders needn't enclose this provided that proof of EMD remittance is enclosed in the technical tender.
- (3) Price Bid in the price schedule enclosed in the tender, in sealed envelope, clearly superscribing “Price Bid”, Tender Number, Name of Work, Name of the Vendor and addressee.

All the above “Parts” can be placed in an sufficiently large outer envelope for submission.

1.1.1a This Tender specification as a whole, duly furnishing the following details shall be duly signed and sent in a sealed cover superscribing :

TENDER FOR _____
TENDER SPECIFICATION NO. _____
DUE ON _____

1.1.1b DURATION OF JOB

1.1.1.1 Earnest Money Deposit.

1.1.1.2 Income Tax & Sales Tax Clearance Certificate.

1.1.1.3 Detailed organisation chart for manpower resources available with the tenderer and to be employed for the present jobs.

1.1.1.4 Time to be taken for commencement and completion of Work.

1.1.1.5 A list of experience as mentioned in the tender document.

1.1.1.6 The details of the present jobs being handled.

1.1.1.7 Certificate from the BHEL's scheduled Banks to establish financial capability of the tenderer as per format enclosed at annexure-I.

1.1.1.8 Attested copies of partnership deed, power of attorney and tender specifications duly signed as mentioned in the tender documents.

1.1.1.9 Price schedule and other relevant information.

NOTE: All Xerox copies enclosed by the Vendor should be attested and sealed for authenticity.



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1.1.2 The tender shall be addressed to :

AGM , PURCHASE DEPARTMENT
~~MANAGER / SENIOR MANAGER (SUBCONTRACTS)~~
BHARAT HEAVY ELECTRICALS LIMITED,
POWER SECTOR, EASTERN REGION, (2ND FLOOR),
PLOT-9/1,BLOCK-DJ,SECTOR-II,SALT LAKE,
KOLKATA – 700091.

1.1.3 Tenders submitted by post shall be sent “REGISTERED POST ACKNOWLEDGEMENT DUE” and shall be posted with the due allowance for any postal delay. The tenders received after the due date and time of opening are liable to be rejected. Telegraphic offers and offers received by telex may not be considered unless confirmed in writing by a detailed offer.

1.1.4 Tenders shall be opened by the authorised officer of BHEL at his office at the time and date as specified in the tender notice in the presence of such of those tenderers or their authorised representatives who may be present.

1.1.5 The Tenderer shall closely peruse all the clauses, specifications and drawings indicated in the Tender Documents before quoting. Should the tenderer have any doubt about the meaning of any portion of the Tender Specifications or find discrepancies or omission in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, scope of work etc., he shall at once contact the authority inviting the tender for clarification before the submission of the offer.

1.1.6 Before tendering, the tenderer is advised to inspect the site of work and the environments and be well acquainted with the actual working and other prevalent conditions, facilities available, position of material and labour. No claim will be entertained later on the ground of lack of knowledge.

1.1.7 Tenderers must fill up all the schedules and furnish all the required information as per the instructions given in various sections of the tender specification. Each and every page of the Tender Specification & deceleration must be signed bearing seal and submitted along with the offers by the Tender in token of complete acceptance thereof. The information furnished shall be complete by itself. The booklet of G.S.C.C may be retained by the bidder if deceleration is enclosed along with the bid duly filled in and signed and sealed.

1.1.8 The tender shall quote the rates in English language and international numerals. The rates shall be in whole rupees. These rates shall be entered in figures as well as in words. For the purpose of the tender, the metric system of units shall be used.

1.1.9 All entries in the tender shall either be typed or be in ink. Erasures and overwriting are not permitted and may render such tenders liable to summary rejection. All cancellations and insertions shall be duly attested by the tenderer.

1.2 Qualifications of Tenderers :

Only tenderers who have previous experience in work of this nature and description detailed in this tender specification and/or registered with BHEL, PS-ER-SAS for such works are expected to quote for this work duly detailing their



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experience along with the offer. Offers from tenderers who do not have established experience in the field are not likely to be considered.

1.3 Data to be enclosed :

Full information shall be given by the tender in respect of following. Non-submission of this information may lead to rejection of the offer/tender.

1.3.1 Financial Status :

- a) A certificate from BHEL's scheduled Bank to prove his financial capacity/capability to undertake the work of solvency certificate from the concerned Government Authority.
- b) Contractors other than those who are registered in ER, should submit their audited annual accounts for three years preceding the financial year in which tenders are called for.

1.3.2 Income Tax / Sales Tax Certificate :

A certificate of Income Tax / Sales Tax verification from the appropriate authority in the forms prescribed therefor duly indicating annual turnover. The certificates shall be valid for one year from the date of issue or for the period prescribed therein for all tenders submitted during the period.

1.3.3 Previous Experience :

A statement giving particulars duly supported by documentary evidence of the various services rendered for each similar work by the tenderer indicating the particulars and value of each work, the site location and the duration and date of completion and also a list of site locations and particulars and value of various services that are under progress.

1.3.4 Organisation Chart :

The organisation pattern that is totally available with the tenderer and that will be employed by the tenderer for this work duly indicating the number of Engineers and Supervisors, their qualification and experience in the line, the number of skilled and unskilled workmen etc.

1.3.5 An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor, shall also be attached.

1.3.6 In case of an individual :
His full name, address and place and nature of business.

1.3.7 In case of Partnership firms:
The name of all the partners and their addresses. A copy of the Partnership Deed (Instrument of partnership) duly certified by the Notary Public shall be enclosed.

1.3.8 In case of Companies:



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Date and place of registration including Date of Commencement Certificate in case of public companies (certified copies of Memorandum and Articles of Associations are also to be furnished).

- 1.3.9 Nature of business carried on by the Company and the provision of the Memorandum relating thereof.
- 1.3.10 Names and particulars including addresses of all the Directors and their previous experience.
- 1.3.11 A list of tools and tackles that the tenderer is having and those that will be earmarked for this job.
- 1.3.12 In addition to the above, the particulars required in various annexures.

EARNEST MONEY DEPOSIT:

- 1.4.1 Every tender Must be accompanied by the prescribed amount of Earnest Money Deposit in any one of the following forms:
- 1.4.1.1 CASH - The amount should be remitted by the party to the Cashier of Bharat Heavy Electricals Limited, PS-ER,Kolkata between 14.00 hours and 16.00 hours on working days and cash receipt issued by him shall be enclosed along with the tender.
- 1.4.1.2 Crossed Demand Draft OR Pay Order payable at Kolkata duly pledged in favour of Bharat Heavy Electricals Limited, Kolkata.
- 1.4.1.3 Parties who are registered as Contractors in this Region for services jobs may deposit a sum of Rs. 1,00,000/- (Rupees One lakh only), non-interest bearing, towards one time Earnest Money Deposit (OEMD) in which case they are exempted from paying E.M.D. on case to case basis. This facility can also be availed by non-registered contractors getting regular enquiries also .
- 1.4.2 Tenders received without Earnest Money in full in the manner prescribed above are liable to be rejected.
- 1.4.3 The Earnest Money Deposit of the successful tenderer will be retained towards part of Security Deposit of the due fulfilment of the Contract. However, the same may be released as soon as the Security Deposit mentioned clause 1.8 is furnished.
- 1.4.4 In the case of unsuccessful tenderers the Earnest Money will be refunded to them within a reasonable time on acceptance of award of work by the successful tenderer.
- 1.4.5 BHEL reserves the right of forfeiture of Earnest Money Deposit in case the successful tenderer.
- a) fails to start the work, as may be in the Letter of Intent.
- b) after opening of tender, revokes his tender within the validity period or increases his quoted rates.
- c) Fails to mobilise the site with required T&P and manpower within the time specified in Letter of Intent.



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1.5 Authorisation and Attestation :

1.5.1 Tenders shall be signed by persons duly authorised/empowered to do so. Certified copies of such authority and relevant documents shall be submitted along with the tenders.

1.6 Validity of Offer :

The rates in the tender shall be kept open for acceptance for a minimum period of six months from the due date of opening of tenders. If a tenderer withdraws or revokes his tender or increases the tender rates and/or conditions for any item within the aforesaid period, his Earnest Money Deposit is liable to be forfeited. In case the Bharat Heavy Electricals Limited calls for negotiations, such negotiation shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderers.

1.7 Execution of Contract:

The successful tender's responsibility under this contract commences from the date of issue of the Letter of Intent by Bharat Heavy Electricals Limited. The successful tenderer may be required to execute an agreement in the prescribed form with the BHEL within a reasonable time after the acceptance of his tender and in any case before submitting first RA bill for payment. The expenses for completing and stamping the agreement shall be borne by the tenderer.

1.8 Security Deposit :

1.8.1 Upon acceptance of tender, the successful tenderer within the time specified in the Letter of Intent must deposit the required amount towards Security Deposit before start of the work.

1.8.2 The total amount of Security Deposit shall be as follows:

a) In the case of work upto ten lakh	10%
b) In the case of work costing above Rs. 10 lakh upto Rs. 50 lakhs	Rs. 1[One] lakh plus 7.5% of the the amount exceeding Rs 10 lakhs.
c) Above Rs 50 lakhs	Rs. 4 [Four] lakh plus 5% of the the amount exceeding Rs 50 lakhs.

1.8.3 If the value of the work done at any time exceeds the accepted agreement value, the Security Deposit shall be correspondingly enhanced and the extra Security Deposit shall immediately be deposited by the contractor or recovered from payments due to him.

1.8.4 Regarding adjustment of Earnest Money Deposit towards part of Security Deposit, refer clause 1.4 above, the successful tenderer shall not commence any work under the contract before remitting the Security Deposit except as directed by BHEL.

1.8.5 Failure to deposit the Security within the stipulated time may lead to forfeiture of Earnest Money and cancellation of the award of work.

1.8.6 Security Deposit may be furnished in any one of the following forms

- i) Cash (as permissible under the Income Tax Act)
- ii) Pay Order, Demand Draft in favour of BHEL.



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- iii) Local cheques of scheduled banks, subject to realization.
- iv) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc.
(Certificates required in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back).
- v) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act ~~subject to a maximum of 50% of the total security deposit value. The balance 50% has to be remitted either by cash or in the other form of security.~~ The Bank Guarantee format should have the approval of BHEL. Bank Guarantee for S.D. must be posted by the Bank by registered post direct to us, and it should not be submitted by the bidder direct to us.
- vi) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act . The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
- vii) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit shall be collected before start of the work and the balance 50% will be recovered from the running bills.
- viii) EMD of the successful tenderer may be converted and adjusted against the security deposit.

NOTE: Acceptance of Security Deposit against Sl. No. (iv) and (vi) above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

1.8.7 However, the deposits should cover up to the period of warrantee also. However, if S.D. (50%) is furnished in the form of Bank Guarantee, it should be valid for atleast a period covering the scheduled duration of the job plus six months.

1.8.8 BHEL reserves the right of forfeiture of Security Deposit in addition to other claim and penalties in the event of the contractor's failure to fulfill any of the contractual obligations including statutory or in the event of termination of contract as per terms and conditions of contract.

1.8.9 Return of Security Deposit:

If the contractor duly performs and completes the contract in all respects to the entire satisfaction of BHEL, and presents an absolute "No Demand Certificate" in the prescribed form and return properties belonging to BHEL handed over, lent or hired by him for carrying out the said works the security deposit will be released to the contractor after deducting all costs or expenses or other contracts entered into with the contractor, only after the satisfactory completion or guarantee period as per clause 2.13.

1.8.10 No interest shall be payable by BHEL on Earnest Money / Security Deposit or any money due to the contractor from BHEL.

1.8.11 in no case Security Deposit can be released before settling all claims under this contract.

1.9 Rejection of Tender and other conditions:



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- 1.9.1 The acceptance of tender will rest with BHEL which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights for the following without assigning any reasons whatsoever:
- a) to reject any or all of the tenders.
 - b) To split up the work amongst two or more tenderers.
 - c) To award the work in part.
 - d) Either of the contingencies stated in (b) and (c) to modify the time for completion suitably.
 - e) To modify the scope of work after mutual agreement.
- 1.9.2 Conditional and unwitnessed tenders:
- Tenders containing absurd or unworkable rates and amounts and tenders which are incomplete and otherwise considered defective and tenders not in accordance with the tender conditions, specifications etc. are liable to be rejected.
- 1.9.3 If a tenderer expires after his submission of the tender or after the acceptance of his tender, BHEL may at their discretion, cancel such tender. If a partner of a firm expires after the submission of the tender or after the acceptance of the tender, BHEL may cancel such tender at their discretion unless the firm retains its character.
- 1.9.4 BHEL will not be bound by any Power of Attorney granted by the tenderer or by changes in the compositions of the firm made subsequent to the execution of the contract. They may, however, recognise such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.
- 1.9.5 If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract, if awarded and forfeit the Earnest Money/Security Deposit.
- 1.9.6 Canvassing in any form in connection with the tenders is strictly prohibited and the tenders submitted by the contractor who resort to canvassing are liable to rejection.
- 1.9.7 Should a tenderer or contractor or in the case of a firm or Company of Contractors one or more of its Partners/shareholders/Directors have a relation or relations employed in the capacity of an officer of BHEL, the authority inviting tender shall be informed of the fact along with the offer, failing this, BHEL may at its sole discretion, reject the tender or cancel the contract and forfeit the Earnest Money/Security Deposit.
- 1.9.8 The successful tenderer should not sub-contract the part or complete work detailed in this tender specification undertaken by him without permission of BHEL. The tenderer is solely responsible to BHEL for the work awarded to him. Any deviation in this regard will entail termination of such contract by BHEL at the risk and responsibility of contractor.
- 1.9.9 The successful tenderer shall inform/keep BHEL informed if he has already undertaken any work/is likely to be awarded any job with the same customer with whom BHEL is entering into contract.



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SECTION – II

GENERAL TERMS & CONDITIONS OF THE CONTRACT

2.1 Definition :

The following terms and expressions shall have the meaning hereby assigned to them except where they context otherwise requires :

- 2.1.1 'BHEL' (or B.H.E. Ltd.) shall mean Bharat Heavy Electricals Limited, a company registered under Indian Companies Act., 1956, with its Registered Office at BHEL House, SIRI FORT, NEW DELHI-110049, Power Sector, Eastern Region, Service After Sales – Services, DJ-9/1, Salt Lake, Kolkata – 700091 or its Administrative officers or its site Engineer or the employees authorised to deal with any matters with which these persons are concerned on its behalf.
- 2.1.2 "GENERAL MANAGER"/DEPUTY IN CHARGE" shall mean the Officer in Administrative charge of BHEL, PS-ER, SAS – Services, Kolkata or their other regional offices.
- 2.1.3 "ENGINEER" or "ENGINEER IN CHARGE" shall mean Engineer deputed by BHEL. The terms includes "SITE ENGINEER", "RESIDENT ENGINEER" and "ASSISTANT SITE ENGINEER" of BHEL at the site as well s the officers in-charge at Kolkata office.
- 2.1.4 "SITE" shall mean the place or places at which the plants/equipment are to be overhauled and services are to be performed as per the specification of this contract.
- 2.1.5 "CLIENTS OF BHEL" or "CUSTOMER" shall mean the Project authorities to whom BHEL is supplying the equipment/services.
- 2.1.6 "CONTRACTOR" shall mean the individual, firm or company who enters into this contract with BHEL and shall include their executors, administrators, successors and permitted assigns.
- 2.1.7 "CONTRACT" or "CONTRACT DOCUMENT" shall mean and include the agreement or work order, the accepted appendices of rates, schedule of quantities, if any and general condition of contract, the special conditioning of contract instructions of the tenderers, the drawings, the specifications, the special specification, if any, the tender specifications, the special specification, if any, the tender documents and the Letter of Intent/Accepting Letter issued by BHEL. Any conditions or terms stipulated by the contractor in the tender documents or supporting letters shall not form part of the contract unless specifically accepted in writing by BHEL and incorporated in the agreement.
- 2.1.8 "GENERAL CONDITIONS OF CONTRACT" shall mean the instructions to tenderers and general conditions of contract pertaining to the work detailed.
- 2.1.9 "TENDER SPECIFICATION" shall mean the "Specific Conditions, technical specifications, appendices, site information and drawings, "pertaining to the work for which the tenderers are required to submit their offer. Also this will include the specifications detailed in NIT of client of BHEL for overhauling, erection, testing and commissioning of plant. Individual specification no. will be assigned to each tender specification.



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- 2.1.10 "TENDER DOCUMENTS" shall mean the General conditions of contract (2.1.8) and tender specification (2.1.9)
- 2.1.11 "LETTER OF INTENT" shall mean the intimation by a letter to the tenderer that the tender has been accepted in accordance with provisions contained in that letters. The responsibility of the contractor commences from the date of issue of this letter and all the terms and conditions of contract are applicable from this date.
- 2.1.12 "COMPLETION TIME" shall mean the period by date specified in the acceptance of tender for handing over the overhauled equipment/plant which are found acceptable by the engineer being of required standard and conforming to the specification of the contract or recommissioning of the machine successfully whichever is later. Completion time will be reckoned from the date of LOI with the period for mobilisation as prided with LOI, added to the same.
- 2.1.13 "PLANT" shall mean and cannot the entire assembly of the plant and equipments covered by the contract.
- 2.1.14 "EQUIPMENT" shall mean all equipments, machineries, materials, structurals, electricals and other components of the plant covered by the contract.
- 2.1.15 "TESTS" shall mean and include such test or tests to be carried out on the part of the contractor as are prescribed in the contract or considered necessary by BHEL, in order to ascertain the quality workmanship, performance and efficiency of the contract work or part thereof.
- 2.1.16 "APPROVED" "DIRECTED" or "INSTRUCTED" shall mean approved, directed or instructed by BHEL.
- 2.1.17 "WORK OR CONTRACT WORK" shall mean and include supply of all categories of labour, specified consumables, tools and tackles required for complete and satisfactory site transportation, handling, stacking, storing, overhauling erection, testing and commissioning of the equipment to the entire satisfaction of BHEL.
- 2.1.18 "SINGULAR AND PLURAL ETC" words carrying singular number shall also include plural and vice versa, where the context so requires, words importing the masculine gender shall be taken to include any company or Association or body of individuals, whether incorporated or not.
- 2.1.19 "HEADINGS" The Leadings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in interpretation or construction thereof or of the contract.
- 2.1.20 "MONTH" shall mean calender month.
- 2.1.21 "WRITING" shall include any manuscript, type written or printed statement under the signature or seal as the case may be.
- 2.2 Law governing the contract and Court Jurisdiction:

The contract shall be governing by the Law for the time being in force in the Republic of India. The Civil Court having ordinary original civil jurisdiction, Kolkata



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shall alone have exclusive Jurisdiction in regard to all claims in respective of this contract.

2.3 Issue of Notice :

The contractor shall furnish to the BHEL Engineer the name, designation and address of his authorised agent and all complaints, notices, communications and reference shall be deemed to have been duly given to the contractor if delivered to the contractor or his authorised agent or left at or posted to the address either of the contractor or of his representative and shall be deemed to have been so given in the case of posting on the day on which they would have reached such address in the ordinary course of post or on which they were so delivered or/ or left.

2.4 Use of Land:

No land belonging to BHEL or their customer, under temporary possession of BHEL shall be occupied by the contractor without the written permission of BHEL.

2.5 Commencement of Work:

2.5.1 The contractor shall commence the work within the time indicated in the Letter of Intent from BHEL and shall proceed with the same with due expedition without delay. For computing the scheduled completion date, commencement, of work will be reckoned from the date of complete mobilisation as per LOI, unless specifically amended by Head (Services), BHEL, Kolkata.

2.5.2 If the successful tenderer fails to start the work within the stipulated time, BHEL as its discretion will have the right to cancel the contract. His Earnest Money and / or Security Deposit with BHEL will stand forfeited without any further reference to him, without prejudice to any and all of BHEL's other rights and remedies in this regard.

2.5.3 All the works shall be carried out under the direction and to the satisfaction of BHEL.

2.5.4 The erected overhauled plant or work performed under the contract shall be taken over when it has been completed in all respects and or satisfactorily put into operation at site.

2.6 Mode of payment and measurement of the work completed.

2.6.1 "All payment due to the contractor shall be paid only by Account payee Cheques"

2.6.2 The contractor shall present his bill on the format prescribed by BHEL for every payment. After verification of such bills by BHEL, all items having financial value shall be entered and certified in BHEL Measurement Book by BHEL Engineer and the bills prepared based on the same and connected technical documents which form part of this tender specification.

2.6.3 Lumpsum omission will be entered for deduction. Measurement shall be restricted to that for which it is required to ascertain the financial liability of BHEL under this Contract.



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- 2.6.4 Work which is to be measured in details shall be measured as per standard procedure without reference to any local procedures without reference to any local procedures excepting where it is otherwise stated in the tender documents. The measurement shall be taken jointly by person duly authorised on the part of BHEL and by the contractor.
- 2.6.5 If, at any time due to reason whatsoever, it becomes necessary to remeasure the work done in full or in part, the expenses towards such remeasurement shall be borne by the contractor.
- 2.6.6.1 The contractor shall bear the expenditure involved, if any, in making the measurement. The Contractor shall, without extra charges, provide all the assistance with appliances with appliance and other things necessary for measurement.
- 2.6.7 The measurement entered in the Measurement Books and the bills prepared shall be signed and dated by both the contracting parties.
- 2.6.8 The Contractor will be intimated in writing by the site Engineer, the proposed date of measurement. If the contractor, representative fails to participate in the joint measurement, the BHEL engineer shall have the power to proceed by himself to take measurement in which case the measurement shall be accepted by the contractor as final.
- 2.6.9 Passing of measurement as per bills does not amount to acceptance of the completion of work mentioned. Any left out work has to be completed if pointed out at a later dated by BHEL.
- 2.7 Right of BHEL :
- BHEL reserves the following rights in respect of contract without entitling the contractor for any compensation.
- 2.7.1 To get the work done through other agency at the risk and cost of the contractors poor progress, or inability to progress the work for completion as stipulated in contract, poor quality of the work etc., and to recover compensation for such losses from the contractor including BHEL's supervision charges and overheads from security deposit other use.
- 2.7.2 To withdraw any portion of work and/or to restrict / alter the quantum of work as indicated in the contract during the progress of work and get it done through other agency and/or by departmental labour to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergency reasons / BHEL's obligation to its customer.
- 2.7.3 To terminate the contract after due notice and forfeit Security Deposit and recover the loss sustained in getting the balance work done through other agencies in addition to liquidated damages in the events of :
- 2.7.3.1 Contractor's continued poor progress brought to his notice from time to time .
- 2.7.3.2 With draws from or abandonment of the work before completion of work.
- 2.7.3.3 Corrupt act of Contractor.



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2.7.3.4 Insolvency of the Contractor.

2.7.3.5 Persistent disregard to the instruction in writing of BHEL.

2.7.3.6 Assignment, transfer, sub-letting of the contract without BHEL's written permission.

2.7.3.7 Non fulfilment of any contractual obligations :

Any delay in works for reasons attributable to the contractor will have to be compensated by either increasing manpower and resources or by working extra hours and more than one shift without any extra cost.

2.7.4 To recover any money due from the contractor, from any money due to the contractor under this contract or any other contract or from the Security Deposit.

2.7.4.1 The term 'any other contract' will also include any contract entered with the contractor by any other unit division of BHEL, in addition to the ones awarded by BHEL, PSER, Kolkata.

2.7.5 To claim compensation for losses sustained including BHEL's supervision charges and overheads in completion, on termination of contract, to impose penalty for delay in completion of the work, at the rate of 0.5% (half percent) of the Contract value per day of delay or part thereof subject to a ceiling of 10% of the contract value.

2.7.6 To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customers are terminated for any reason.

2.7.7 To effect recovery from any amounts due to the Contractor under this or any other contract etc. in any other form, the money BHEL, is forced to pay to any body, due to contractor's failure to fulfil any of his obligations.

2.7.8 While every endeavour will be made by BHEL they cannot guarantee uninterrupted work due to conditions beyond their control. Contractor will not be entitled to any compensation / extra payment on this account.

2.7.9 In the event of any dispute of any nature, the decision of BHEL shall be final and binding on the contractor.

2.8 Responsibilities of the Contractor :

The following are the responsibilities of the contractor in respect of observation of local laws, employment of personnel, payment of taxes and execution of job etc.

2.8.1 As far as possible, unskilled workers shall be engaged from the local areas in which the work is being executed.

2.8.2 The Contractor at all times during the continuance of this contract, shall in all his dealing with local labour for the time being employed on or in connection with the work, have due regard to all local festivals and religious and other customs.

2.8.3 The contractor shall comply with all state and central Laws, Statutory Rules, Regulations etc., such as :

The payment of wages Act, Minimum Wage Act, Workmen compensation Act, Employers Liability Act, Industrial Disputes Act, Employees Provident Fund Scheme,



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Employees Insurance Scheme, Contract Labour (Regulation & Abolition) Act 1970 and other Acts, Rules & Regulations for labour as may be enacted by the Government during the tenure of the Contract and having force or jurisdiction at site. The Contractor shall give to the local Governing Body, Police and other relevant authorities all such notices as may be required by law.

- 2.8.4 The Contractor shall pay all taxes, fees, licence charges, deposits duties, tools, royalty, commission or other charges which may be leviable on account of any of his operations in executing the contract. In case, BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from the contractor either from his bills or otherwise as deemed fit.
- 2.8.5 The Contractor shall be responsible for provision of health and sanitary arrangements, more particularly described in contract Labour (Regulation & Abolition Act) safety precautions etc., as may be required of same and satisfactory execution of the contract.
- 2.8.6 The contractor shall fulfil all his obligation in respect of accommodation including proper medical facilities for the personnel employed by him.
- 2.8.7 The contractor shall be responsible for the proper behaviour at site and observance of all regulations by the staff employed by him.
- 2.8.8 The Contractor shall ensure that no damage is caused to any person / property of other parties working at site. If any such damages is caused, it is the responsibility of the contractor to make the losses or compensate for the same.
- 2.8.9 All the properties / equipments / components of BHEL / their client loaned with or without deposit to the contractor in connection with the contract shall remain the properties of BHEL / their client. The Contractor shall use such properties for the purpose of execution of this contract. All such properties / equipment / components shall be deemed to be in good condition when received by the contractor unless he notified within 48 hours to the contrary. The Contractor shall return them in good conditions as and when required by BHEL / their client. In case of non-return, loss damage, repairs, etc. the cost thereof, as may be fixed by the site Engineer, will be recovered from the contractor.
- 2.8.10 It is not obligatory on the part of BHEL to supply any tools and tackles or other materials other than those specifically agreed to do so by BHEL. However, depending upon the availability / possibility BHEL's customers' handling equipment and other plants may be made available to the contractor on payment of the hire charges / free of charges as fixed, subject to the condition laid down by BHEL. Customer form time to time, Unless paid in advance, such hire charges if applicable shall be recovered from contractor's bill / security Deposit in one instalment.
- 2.8.11 The contractor shall not claim any compensation of the scope of the work, due to changes in design which curtails quantum.
- 2.8.12 The Contractor shall fully indemnify BHEL against all claims of whatsoever nature arising during the course of erection / overhauling / performing work under the contract.



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- 2.8.13 In case the contractor is required to undertake any major work outside the scope of this contract the rates payable shall be decided by BHEL Resident Engineer.
- 2.8.14 The contractor shall keep the area of work clean and shall remove debris etc., while executing day to day work. Upon completion of work, the contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places to be specified by the BHEL Engineer. The contractor will also demolish all hutments, sheds, partitions, offices, constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be removed by the BHEL. The expenses thereof will be recovered from contractor.
- 2.8.15 The contractor shall arrange and co-ordinate his work in such a manner as to cause no inconvenience to other agencies working in the area.
- 2.8.16 All safety rules and codes applied by the client / BHEL at site shall be observed by the contractor without exception. The contractor shall be responsible for the safety of the equipment / material and work to be performed by him and shall maintain all light, fencing guards, signs etc. or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards and atmospheric conditions. Suitable number of electrical staff, watch and ward, store keepers to take care of the equipment, materials and construction tools and tackles, shall be posted at site by the contractor till completion of the work under this contract. The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite tests of handling equipment, lifting tools, tackles etc, as per prescribed standards and practices.
- 2.8.17 The contractor will be directly responsible for payment of wages to his workmen. A pay roll sheet giving all the payments given to workers and duly signed by the contractor's representative should be furnished to BHEL site office for record purpose. BHEL site In-charge may be intimated the date of disbursement of wages to the workmen engaged for the work, so that his representative can witness the same.
- 2.8.18 The intent of specification, is to provide services according to most modern and proven techniques and codes. The omission of specific reference to any method, requirement or material necessary for the proper and efficient performance of work shall not relieve the contractor of the responsibility of providing such facilities to complete the work.
- 2.8.19 In case of any clause of the work for which there is no such specification as laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the BHEL Engineer.
- 2.8.20 No levy or payment or charge made or imposed shall be impeached by reason of any clerical error or by reason of any mistake in the amount levied or demanded or charged.
- 2.8.21 The details drawings, specifications, instructions manual, if any available with the BHEL Engineer will form part of tender specification . These documents will be made available for reference only to the contractor during execution of work.
- 2.8.22 Should any error or ambiguity be discovered in the specification or information, the contractor shall forthwith bring the same to the notice of BHEL before



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commencement of work. BHEL's interpretation in such cases shall be final and binding on the contractor.

- 2.8.23 No idle labour charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour being rendered idle due to any cause of any type.
- 2.8.24 No over run charges shall be paid in the event of the completion period being extended for any reason whatsoever.
- 2.8.25 It is possible that some repair/rectification, modification may be needed on the equipments to be overhauled / work to be performed under this specification, for reasons not attributions to the contractor . All such repair / rectification / modification work which can be done, with the available facilities at site shall be carried out by the contractor free of cost and no extra charger shall be paid to contractor.
- 2.8.26 The quality and progress of work will be regularly reviewed. The schedule and progress of work will be given to the contractor in advance and it will be the obligation / responsibility of the contractor to achieve the desired quality and progress of work by suitably reinforcing their labour force and/or by working extra hours or in more then one shift without any extra cost. Workmen found unsuitable for the work will be replaced immediately by the contractor on being informed by BHEL.
- 2.8.27 During the overhauling work under the contract it is very essential that proper and adequate inspection should made constantly to maintain the quality or workmanship so that any deviation from design dimension does not exceed permissible limits. The proper functioning of the unit, while in operation, depends to a great extent on the above factors. The fact that effective supervision and inspection at the execution stage is less costly than any down time of running unit even for a short period need not be over emphasized. For the details regarding alignment and permissible dimensional deviations in the sub-assemblies BHEL Engineer may be consulted.
- 2.8.28 The contractor shall be furnish fortnightly labour report showing by classification of number of employees engaged in various categories or work date wise and submit a progress report of wok as required by BHEL Engineer.
- 2.8.29 The contractor shall execute the work in the most substantial and workmen-like manner in stipulated time. Accuracy of work and timely execution are the essence of this contract. The contractor shall be responsible to ensure that the assembly and workmanship conform to the dimensions and clearances given in the drawings and/or as per instructions of BHEL Engineers.
- 2.8.30 The contractor shall take all responsible care to protect the materials and work till such time the plant/equipment has been taken over by BHEL / their client. Where necessary, suitable temporary fencing and lighting shall have to be provided by the contractor as a safety measure against accident and damage of property of BHEL. Suitable caution notice shall be displayed where access to any part may be deemed to be unsafe and hazardous.
- 2.8.31 It will be the responsibility of the contractor to ensure safe lifting of the equipments taking due precautions to avoid any accidents and damage to other equipments and personnel.
- 2.9 Consequence of cancellation :



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Whenever BHEL exercises its authority to terminate the contract/withdrew a portion of work under the clause 2.7 they may complete the work by any means at the contractor's risk and expenses provided that in the event of the cost of completion (as certified by the site Engineer which is final and conclusive) being less than the contract cost, the advantage shall accrue to BHEL and that if the cost of completion exceeds the money due to the contractor under the contract, the contractor shall either pay the excess amount ordered by BHEL or the same shall be recovered from the contractor by any other means. This will be in addition to the forfeiture of Security Deposit and recovery of liquidated damages as per relevant clauses.

2.9.1 In case BHEL completes the work under the provision of this condition, the cost of such completion to be taken into account in determining the excess cost to be charged to the contractor under this condition, shall consist of materials purchased and / or labour, provided by BHEL with an addition of such percentage to cover supervision and establishment charges as may be decided by BHEL.

2.10 Insurance :

2.10.1 BHEL / their customer shall arrange for insuring the materials / properties of BHEL/customer covering risks during transit, storage, overhauling, erection and commissioning.

2.10.2 It is the sole responsibility of the contractor to Insure his workman against accident and injury while at work as required by relevant rules and to pay compensation, if any, to workmen as per workmen's compensation Act. Contractor shall insure his staff against accidents. The work will be carried out in a protected area and all the rules and regulations of the client / BHEL in the area of project which are in force from time to time, will have to be followed by the contractor.

2.10.3 If due to negligence and /or non-observations of safety and other precautions, any accident / injury occurs to any other person/public, the Contractor shall have to pay necessary compensation and other expenses, if so decided by the appropriate authorities. Third party insurance coverage is to be made by the contractor.

2.10.4 If due to contractor's carelessness, negligence or non-observance of safety precautions damage to BHEL's /Customer's property and personnel should occur, and if BHEL is unable to recover, in full, cost from the Insurance Company, the balance will be recovered from the Contractor.

2.11 Strikes & Lockouts :

The contractor will be fully responsible for all the disputes and other issues connected with his labour. In the event of the contractor's labour resorting to strike or the lockout declared is not settled within a period of one week BHEL shall have the right to get the work executed employing the own labour or through any other agencies or both and the cost so incurred by BHEL, shall be deducted from the contractor's bills as per clause 2.7. For all purposes whatsoever, the employees of the contractor shall not be deemed to be in the employment of BHEL.

2.12. Force Majeure :

2.12.1 The following shall amount to Force Majeure :



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Acts of God, Acts of any Government, war, sabotage, riots, civil commotion, police action, revolution, flood, fire, cyclones, earthquake and epidemic and other similar causes over which the contractor has no control.

2.12.2 If the contractor suffers delay in the due execution of the contractual obligation due to delays caused by Force Majeure as defined above, the agreed time of completion of the job covered by this contract or the obligations of the Contractor shall be extended by a period of time equal to the period of delay provided that on the occurrence of any such contingency the Contractor immediately reports to BHEL in writing the causes of delay and the contractor shall not be eligible for any compensation.

2.13 Performance Guarantee :

Even though the work will be carried out under supervision of BHEL Engineers. The contractor shall guarantee against defects attributable to faulty workmanship or procedure adopted in the overhaul for items covered in the contract for a period of six months from the date of re-commissioning of the set after the capital overhaul. The guarantee should cover all defects notified during this period and shall have to be attended to free of cost immediately or at the time our clients are able to give shut down of the set for the required period. when necessary. In case of failure of contractor to attend to such defects as and when required in time, BHEL shall arrange to attend the defects and the charges shall be levied to contractor's account and shall be recoverable from the security deposit / progressive payments.

2.13. Arbitration :

All disputes between the parties to the contract arising out of or in relation to the contract, other than those for which the decisions of the Engineer or of any other person is by the contract expressed to be final and conclusive, shall, after written notice by either party to the contract to other party be referred to sole arbitration of General Manager or his nominee. The arbitration shall be conducted in accordance with the provision of the Indian Arbitration Act, 1996.

The parties to the contract understand and agree that if will be no objection that the General Manager or the person nominated as arbitrator, had earlier in his official capacity to deal directly or indirectly with the matters of which the contract relates or that in the course of his official duties had expressed views on all or any of the matters in dispute of difference. The award of the arbitrator shall be final and binding on the parties to this contract.

In the event of the arbitrator dying, neglecting or refusing to act or resigning or being unable to act for any reason or his award being set aside by the court for any reason, it shall be lawful for the GM or his successor, as the case may be, either to act himself as the Arbitrator or to appoint another arbitrator in place of the outgoing arbitrator in the matter aforesaid.

The arbitrator may from time to time with the consent of both the parties to the contract enlarge the time for making the award.

Work under the contract shall be continued during the arbitration proceedings. The venue of the arbitration shall be the place from which the contract is issued or such other place as the arbitrator at his discretion may determine.



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SECTION – III
SPECIAL CONDITIONS OR CONTRACT

3.1 Quantum of Work :

3.1.1 The scope of work given in the tender specification is only approximate and is liable to variation and alternation at the discretion of BHEL Resident Engineer. No compensation on this account shall be payable to the contractor unless specifically recommended by BHEL Resident Engineer as the variation forming major additions to the original scope of work. All repair / rectification work arising out of normal wear and tear, seizure of parts etc. have to be done by the contractor and the same will be covered by the scope of work of the contract.

3.1.2 The scope of work details out the major activities only. However, as per the general maintenance requirement and site condition, certain related activities may have to be carried out without any extra cost.

3.2 Commencement and completion of work :

3.2.1 The starting time and completion time is the essence of the of the tender. As the time bound programme is firmly committed to customer, the starting time and completion time should be strictly adhered to. It will be not be possible to grant extension in completion time except in extraordinary circumstance, which will be decided entirely at the discretion of BHEL Resident Engineer. Work should normally be carried out in two shifts and sometimes also in three shifts in consultation with BHEL Resident Engineer.

A detailed programme of the various activities covered under this contract with specific time period to fall in the overall frame work of the above dates should be prepared and got approved by BHEL Resident Engineer. The progress against this programme shall be reviewed with BHEL Resident Engineer at the end of each day and critical areas identified and suitable steps taken in time.

If during the review, at any stage of overhauling, BHEL Resident Engineer feels that the delays are not likely to be made up, BHEL reserves the right to take corrective steps as considered necessary by BHEL Resident Engineer to complete work in scheduled time and debit the cost incurred thereon to the contractor. This does not however absolve the contractor of his own efforts in consultation with BHEL Resident Engineer. Every endeavour will be made to see that work proceeds uninterruptedly.

3.2.2 The tenderers should indicate the time required for starting the work once the letter of intent is issued and the time required for completion. The work may have to commence immediately after opening of the tenders. Hence, preference may be given to those tenderers who can commence the work earlier, and also ensure early completion.

3.2.3 The Contractor shall ensure completion of the job in all respects within the day from the date of commencement of work as given in contract.

3.3 Penalty for delay :



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- 3.3.1 In the event of failure to complete the work in given time, an amount equal to ½% [half percent] of the contract value per day subject to a maximum of 10% [ten percent] of the contract value will be levied as penalty, in case the balance work is allowed to be completed by the contractor beyond the scheduled time of completion, which is at the discretion of BHEL. In case of delays on contractor's part, at any stage during the scheduled period or after, BHEL shall have the option of ensuring completion of the job by any other means at its disposal and the charges on this account shall be levied on the contractor. These shall be adjusted against contractor's bills or Security Deposit.
- 3.4 Terms of Payment :
- A minimum time of 15 days will be required for processing the bills and release of payment after the bills are presented to BHEL.
- 3.4.1 Payment will be made up to a total 90% against three progressive bills, or 30% each submitted by the contractor in quadruplicate mentioning the activities completed, based on measurement of work done as per the % break up indicated in the scope of work. The bills will be verified by BHEL site Engineer and certified by BHEL Resident Engineer to ensure payment. Balance 10% shall be payable after successful commissioning.
- All payments are subjects to income tax deductions @1% of the bill amount at source or as per Central Government Laws. No request for advance payment will be entertained by BH
- 3.5 Inspection and Completion :
- The work being carried out by the contractor will be supervised and inspected by our Site Engineers under the overall supervision of BHEL Resident Engineer.
- 3.6 The work will be deemed as complete when it is finally accepted by BHEL Resident Engineer and job completion certificate is issued. No extra payment will be made for any rework carried out by the contractor to rectify any defective work.
- 3.6 The contractor shall not be entitled for labour idling charges under any circumstances.
- 3.6 Tools, Tackles, Test Equipments & Consumables :
- 3.6.1 All tools and tackles and consumables required for day-to-day work like gas and gas cutting sets with accessories, AC/DC welding sets, TIG welding kits, welding cables, electrodes, all necessary power connection at his own cost. However, in case of emergency, BHEL may supply certain items if available, to contractor at actual cost plus handling charges, These will be deducted from contractors' running bills, testing equipment for conducting various tests, during the progress of overhauling / re-commissioning shall have to be provided by the contractor. Spare parts going into permanent installation shall only be provided by BHEL.
- 3.7 Accommodation for site staff and store space :
- 3.7.1 Contractor has to arrange for the stores and office at site ; space for the same shall be made available as per the availability at site. The contractor shall be responsible to provide all necessary facilities like residential accommodation with sanitary facilities, transport, electricity, water, medical bonus etc. as required under various labour laws



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and statutory rules and regulations framed thereunder to the personnel employed by him.

3.8 Responsibilities of the contractor :

3.9 Supervisory staff and labour :

The contractor shall employ, specially skilled labour, supervisor and engineers thoroughly conversant with particular type of work to ensure quality work. BHEL reserves the right to decide on the suitability of the workers and other staff employed by the contractor. BHEL reserves the right to insist on removal of any employees of the contractor at any time if they find him unsuitable and the contractor should forthwith remove him.

3.9 Planning and Execution :

Contractor shall submit a job planning in form of Bar Chart or PERT Chart. A List of manpower category wise, indicating individuals responsibility job activity wise , shall have to be submitted. Daily programme of job shall be displayed on board near work site on day in advance. A daily progress report along with Manpower utilities has to be submitted and backlog of the work, if any, shall be covered up in consultation with BHEL Resident Engineer.

3.9 Safety and Accident Coverage

Contractor shall ensure safety of all his employees at site of work. All employees shall be covered by insurance (workmen compensation) against accident, failing which proper action will be taken against the contractor.

Contractor shall ensure proper safety of the equipments under overhauling by deputing personnel to guard the equipments round the clock. Open oil spaces, steam spaces shall be covered properly against ingress of foreign materials while working.

RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF SAFETY OF MAN, EQUIPMENT, MATERIAL AND ENVIRONMENT

3.8.3.1 Before commencing the work, contractor shall submit a 'SAFETY PLAN" to the authorised BHEL official. The 'Safety Plan' shall indicate in detail the measures that would be taken by the contractor to ensure safety of men, equipment, material and environment during execution of the work. The plan shall take care to satisfy all requirements specified here under. The contractor shall submit safety plan along with his offer. During negotiations before placing or work order and during execution of the contract, BHEL shall have right to review and suggest modifications in the safety Plan. Contractor shall abide by BHEL decision in this respect.

3.8.3.2 The contractor shall take all necessary safety precautions and arrange for appropriate appliances as per direction of BHEL or it's authorised officials to prevent loss of human lives, injuries to personnel engaged, and damage to property and environment.

3.8.3.3 The contractor shall provide to it's work force and ensure the use of the following personal protective equipment as found necessary and as directed by the authorised BHEL officials :



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- a. Safety Helmets conforming to IS-2925 : 1984
- b. Safety Belts conforming to IS – 3521 : 1983
- c. Safety shoes conforming to IS-1989 : 1978
- d. Eye & Face Protection devices conforming to IS-8520 : 1987 and IS-8940 : 1978
- e. Hand & body protection devices conforming to :
 - IS – 2573 : 1975
 - IS – 6994 : 1973
 - IS – 8807 : 1973
 - IS – 8513 : 1977

- 3.8.3.4 All tools tackles, lifting appliances, material handling equipment scaffolds, cradles, safety nets, ladders, equipment etc. used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained before putting them to use and from time to time as instructed by authorised BHEL official who shall have the right to ban the use of any item.
- 3.8.3.5 All electrical equipment, connections and wiring for construction power, its distribution and use shall conform to the requirements of Indian Electricity Act & Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works. All electrical appliance including portable electrical tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed..
- 3.8.3.6 The contractor shall not use any hand – lamp energised by electric power with supply voltage of more than 24 volts. For work in confined spaces, lighting shall be arranged with power source not more than 24 volts.
- 3.8.3.7 The contractor shall adopt all fire safety measures as laid down in the “Code for Fire Safety at Construction Sites’ issued by the safety Department of the Construction Management (HQ) of BHEL and as per directions of the authorised BHEL official. A copy of the above referred “Code for Fire Safety at Construction Sites” shall be made available by BHEL to the contractor for reference, on demand by the contractor, during tendering stage itself.
- 3.8.3.8 Where it become necessary to provide and / or store petroleum products, explosives, chemicals, and liquid or gaseous fuel or any other substance that may cause fire or explosion, the contractor shall be responsible for carrying out such provisions and / or storage in accordance with the rules and regulations laid down in the relevant government acts, such as Petroleum Act, Explosives Act, Petroleum & Carbides of Calcium Manual of the Chief Controller of Explosives, Govt. of India, etc. Prior approval of the authorised BHEL official at the site shall also be taken by the contractor in all such matters.
- 3.8.3.9 The contractor shall arrange at his cost (wherever not specified) appropriate illumination at all work spots for safe working, when natural daylight may not be adequate for clear visibility.
- 3.8.3.10 The contractor shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instructions, that may endanger safety of men, equipment, material and environment in his scope of work or another contractor’s or agency’s Cost of damage if any, to life and property arising out of such violation of statutory regulations and BHEL instructions shall be borne by the contractor.



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- 3.8.3.11 In case of a fatal or disabling injury, accident to any person at construction site due to lapses by the contractor, the victim and / or his / her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary, BHEL shall have the right to impose appropriate financial penalty on the contractor and recover the same from payments due to the contractor for suitably compensating the victim and / or his/her dependents. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the contractor to present his case.
- 3.8.3.12 In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover cost of such damages from payments due to the contractor after holding an appropriate enquiry.
- 3.8.3.13 In case of any delay in the completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have right to recover cost of such delay from payments due to the contractor, after notifying the contractor suitably and giving him opportunity to present his case.
- 3.8.3.14 If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given a reasonable opportunity to do so, and/or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorised BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than seven days indicating the steps that would be taken by BHEL.
- 3.8.3.15 The contractor shall submit report of the accidents, fires and property damage, dangerous occurrences, to the authorised BHEL official immediately after such occurrence, but in any case not later than twelve hours of the occurrence. Such reports shall be furnished in the manner prescribed by BHEL. In addition, periodic reports on safety shall also be submitted by the contractor to the authorised BHEL official from time to time as prescribed.
- 3.8.3.16 Before commencing the work, the contractor shall appoint / nominate a responsible officer to supervise implementation of all safety measures and liaison with his counterpart of BHEL.
- 3.8.3.17 If safety record of the contractor in execution of the awarded job is to the satisfaction of safety Department of BHEL, issue of an appropriate certificate to recognise the safety performance of the contractor may be considered by BHEL after completion of the jobs.
- 3.9 House keeping and preservation :
- 3.9 Work floor/area shall be cleaned every day and be kept absolutely clean. A regular cleaning gang may be engaged for the purpose.

All dismantled components of the equipments under overhauling should be tag marked and stored properly according to type of components, namely all loose/small parts shall be kept in boxes bearing and matching components shall be kept on wooden planks. A list of such components shall be maintained to identify / locate be preserved properly against probable damages.



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No floor shall be damaged while working and necessary steps shall be taken by the contractor for repair in case of any damage.

3.9 Tools stores and Consumables :

Tools & tackles, other than special tools and tackles supplied along with the equipments, shall be arranged and kept properly by the contractor. A register must be maintained and updated regularly.

All consumables, other than those going permanently into the equipment, shall be stored by the contractor for daily use. Regular check shall be made at end of each day's work and exhausted consumables shall be replenished immediately.

The store may be visited by BHEL Engineers without notice for verification.

3.9 The contractor shall make all necessary arrangement to receive spares from BHEL/Customer's stores , as and when required. The unused and scrap materials shall be returned to BHEL / Customer's stores on completion of the work.

A detailed account shall be submitted by the contractor to this effect at the end of the work certifying no dues remained against them duly signed by Resident Engineer BHEL/Customer.

3.9 General :

3.9.1 Standard printed conditions if enclosed with the offer by the tenderers will not be accepted and only those in main body of the offer will be considered for acceptance.

3.9.2 The tenders are likely to be rejected if the tendered is not acceptable to the ultimate customer.

3.9.3 It will be the responsibility of the contractor to carry out trial run of all the equipments overhauled and confirm the satisfactory operation of equipment. The contractor's personnel shall also be present at time of final commissioning and attend to any defects that shall occur during this time.



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Annexure – V

A) TENDERING

1. Tenders may be submitted through Registered post with acknowledgement due, in the name of the addressee only indicated, or by hand delivery or by courier service obtaining acknowledgements of receipt. Telegraphic / Telex offers received in time can be considered, if only followed by acceptable written tender documents in accordance with the telex / telegram and does not result in any advantage over other tenderers because of any possible manipulation in price or date of completion etc.
2. Each and every page of tender documents from declaration of bidders to Annexure VI enclosed should be signed by the tenderer providing his / their seal and date as taken of their full acceptance of the scope of work, terms and conditions etc., and should be returned alongwith the tender offers.
3. The tenders should be quoted in English language and international numbers.
4. All entries in the tender shall be typed in ink legibly written without ambiguity.
5. Qualifications of Tenderers : for open tenders only, the tenderers who have previous experience in the similar nature of work as detailed in this tender specifications are expected to quote duly detailing their relevant experience / credentials along with the offer. Offers of other than the above are not likely to be considered. (List of similar jobs done)
- Enclosure – 1
6. Financial Status : A current / valid certificate from a scheduled bank to provide the financial soundness / capability of the bidder to undertake the work, is required to be submitted alongwith offer.
- Enclosure – 2
7. Income Tax / Sales Tax certificates : A certificate of income tax / sales tax clearance from the appropriate authority, is to be submitted in the form prescribed therefor, valid for the period of contract.
- Enclosure - 3
8. Organization Chart : The organization pattern and that will be deployed by the tenderer for this work duly indicating the number of supervisors, their qualifications and experience in the line, the number of skilled and unskilled persons / etc. is required to be indicated in the offer.
- Enclosure – 4
9. THE FOLLOWING DOCUMENTS SHOULD ALSO BE ENCLOSED.
 - a) An attested copy of the power of attorney in case the tender is signed by an individual other than the sole proprietor.
 - b) In case of an individual his full name, address, nature of business and valid trade licence.



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- c) In case of partnership firm, the names of all partners and their addresses. (A copy of the partnership deed / instrument of partnership, duly attested by the Notary public shall be enclosed.)
- d) In case of companies, date and place of incorporation / registration including date of commencement certificate (for public companies). (Certified copies of Memorandum and articles of association are also to be furnished).

B) EARNEST MONEY DEPOSIT :

For this, please refer article 1.4 (page 4 of 23) of the General and special conditions of contract – 1991 (GSCC) enclosed / supplied with the form issued for empanelment.

C) VALIDITY OF OFFER :

The rates in the tender shall be kept open for acceptance for a minimum period of six months from the due date of opening of tenders. For details, please refer article 1.6 (page 7) of GSCC enclosed.

D) SECURITY DEPOSIT :

The total amount of Security Deposit shall be as follows:

a) In the case of work upto ten lakh	10%
b) In the case of work costing above Rs. 10[ten] lakh upto Rs. 50 lakhs	Rs. 1[One] lakh plus 7.5% of the the amount exceeding Rs 10 lakhs.
c) Above Rs 50[fifty] lakhs	Rs. 4 [Four] lakh plus 5% of the the amount exceeding Rs 50 lakhs.

For details, please refer article 1.8 (page 5 of 23) of GSCC enclosed.

Further it may be noted that no interest shall be payable by BHEL on EMD / SD or any other money due to the contractor from enclosed.

E) ACCEPTANCE / REJECTION OF TENDERS :

For this, please refer article 1.9 (pages 6 to 10) of GSCC enclosed. Also acceptance of customer is pre-requisite for consideration of bid, wherever applicable.

F) ADDITIONAL SPECIFIC TERMS AND CONDITIONS :

01. EXECUTION.

- i) If the site in question is subjected to industrial relations unrest / disturbances / problems, then the successful bidder should take adequate precautionary measures against dislocation of the job on account short problems. Any liability on this account, lies entirely with the contractor.



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- ii) The contractor shall commence the work at site with full manpower, T&P etc. and complete as specified in the particulars of the tender. In case of any delay on the completion of work attributable to the contractor BHEL reserves full rights to cancel the contract fully or partly and to award the job in full or part to an alternate agency and recover the costs towards the same including BHEL's overheads from the contractor.
- iii) In the event of termination of contract or restriction of quantum of job by our client, before or during the execution of contract, BHEL reserves the right to terminate the contract or restrict the quantum of work of sub-contractors accordingly without paying any compensation.
- iv) Manpower : For various category of manpower and their numbers recommended, please refer to the Annexure IV of the tender enquiry.
The contractor shall engage proper skilled / qualified personnel and ensure the expected quality of work. If any of their personnel has been found to be unsuitable, by BHEL / or their client, the contractor shall withdraw them and provide suitable replacement immediately, failing which BHEL reserves full rights to get the job done by alternate suitable persons at risk and cost of the contractor. The delay on this account is attributable to the contractor.
- v) **TOOLS (TACKLES & PLANTS)** : All tools, tackles and plants including precision measuring instruments, lifting devices shall have to be arranged by the contractor. (List of recommended T&P, for guidance, is provided in Annexure II of the tender enquiry). All lifting tackles and pulling devices to be used must bear valid / latest test certificates for their suitability, and the sales tax furnished along with the offer itself.

Also certificates of test / calibration with date of validity for various measuring / test instruments have to be submitted by the tenderer preferably along with the offer itself, or else the same is required to be produced at site before start of job failing which the LOI / W.O. is liable to be cancelled without any compensation.

Successful bidder shall provide valid calibration certificates for IMTEs, fitness certificates for T&Ps and Construction Equipment (e.g. wire ropes, hand operated chain pulley blocks, pulling and lifting machines, electric welding generators, arc welding transformers etc.). Calibration of IMTEs is to be arranged from the accredited agencies. Calibration certificates should have the traceability as per national/international standards. At work site the IMTEs, T&Ps and Construction Equipment shall be checked/tested/inspected by BHEL engineers. The procedure for fitness testing and storage preservation and maintenance of Construction Equipment and T&Ps shall be as per Doc. Nos. PSER:FEX:001:94, PSER:SAS(CAL):016:95 and PSER:FEX:002:94 available with BHEL site engineers.

- vi) **CONSUMABLES** : All consumables required (list for guidance is given in Annexure III of the tender enquiry) for the job shall be arranged by the contractor



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at his cost. However, any spares / components / consumables / materials going permanently into the clients equipment shall be provided to the contractor.

- vii) Successful bidder has to arrange proper storing facilities at site with traceabilities for IMTEs, T&Ps, construction equipments and consumables used during job execution.
- viii) All the T&Ps, consumables etc. must be mobilized at site at least three days prior to actual start of the job. They must be in accordance with those recommended in the Annexure – II and III respectively of the Tender Enquiry and must be got verified to that effect. Formal clearance in writing must be obtained from BHEL's resident engineer before the contractor starts the job.

T&P found defective / improper / insufficient or not having valid test / calibration certificate should be made good immediately.

If the contractor fails to mobilize at least 90% of the recommended T&P and manpower within the stipulated period, the order on the contractor is liable to be cancelled without paying any compensation on to him.

- viii) **Storage** : The contractor shall be responsible for proper storing of all dismantled components, spares, T&P etc., identify them properly and preserve them throughout the execution of the job. Any loss or damage of the components caused due to the lapses attributable to the contractor or his personnel, shall be chargeable to the contractor.
- ix) Transportation of Spares / materials / consumables :

Any material / components / spares required for the work must be collected by the vendor and carried safely to the work site from the point of issue in our clients premises, through his own resources and cost.

Similarly, excess materials / spares etc. must be returned to the client's stores / any other place, within the client's premises, indicated by site-in-charge of BHEL.

Any debris, rubbish at the work spot must be cleared very day by the contractor using his own resources and cost, and disposed off at a placement for, as to be informed to him.

- x) Space / Accommodation :

The contractor will be allowed to have his site office, stores etc. by erecting temporary partitions / chambers / sheds etc. at the work spot according to the availability of space, which will have to be vacated and dismantled at the end of the jobs to restore the space to the client. The contractor should make his own arrangements for the security / watch and ward.



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No residential accommodation / spare can be provided by BHEL to the contractor for any residential accommodation of his personnel. Contractor has to make arrangements/accommodation at site at his cost.

xi) The contractor shall ensure responsible execution of the job and proper behavior of their personnel and observance of all the rules and regulations of our clients.

xii) **Safety** :

a) Standard safety norms/ regulations shall be conserved by the contractor during the execution of the job. The contractor should provide the necessary / stipulated safety devices to his personnel deputed to the site, such as grinding / welding goggles, masks, safety belts, helmets etc. No worker will be permitted to work without necessary safety appliances. Delay of work due to work without necessary safety appliances. Delay of work due to these lapses are attributable to the contractor.

b) All norms related to Health, Safety & Environmental (HSE) norms conforming to ISO-14001 & OHSAS-18001 shall be followed by successful bidder. Bidders may contact SAS-PSER office for getting detailed norms to be followed by bidder at Site

c) The contractor shall comprehensively insure all his site personnel against any hazard / accident and submit a copy of the insurance certificate covering all his site personnel to our resident engineer before commencement of work.

d) In case of any accident / hazard, the contractor shall arrange for medical attendance immediately shall compensate the personnel concerned in accordance with the workmen's compensations act in force and shall keep BHEL indemnified against any provisions of the act.

e) The successful bidder is to arrange a full set of First Aid kit for attending to manpower deployed by him at site as per requirement.

f) Successful bidder should follow all safety norms at work site. The Doc. No. PSER:PMX:004:94 in this regard is available with BHEL engineer at site.

02. **STATUTORY COMPLIANCE** :

i) The contractor shall comply with all state and central laws, statutory rules regulations etc. such as :



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The payment of wages act, maximum wages act, workmen's compensation act., industrial disputes act, employees provident funds act / scheme, Employees' state insurance scheme, contract labour (Regulation & abolition) act, 1970 etc. and all other acts, rules & regulations for employment of labour as may have been and as may be enacted by the Government during the tenure of the contract and having force or jurisdiction at site. The contractor shall give to the local government body, police, labour authorities and other relevant authorities and all such intimation and notices as may be required by law and appraise BHEL site-in-charge of such compliance.

- ii) The contractor shall pay all taxes, fees, licence charges, deposits, duties, fines, royalty commissions or other charges which may be leviable on account of any of his operations in executing the contract. In case, BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from the contractor either form his bills or other issue as deemed fit.
- iii) The contractor shall obtain requisite licence from appropriate authority of the ministry of labour under the provision of the contract labour (Regulation and abolition) Act as soon as the work is avoided to him and indemnify BHEL against the application of any provisions of the act.
- iv) The contractor shall be responsible for provision of welfare and health of his employees / workmen, more particularly described in the contract labour (Regulation & abolition) act / rules, and safety precautions etc., as may be required for satisfactory execution of the contract.
- v) The contractor shall fulfil all his obligations in respect of canteens, rest rooms, accommodation including proper medical facilities etc. for the personnel employed by him, more particularly described in the contract labour (regulation & abolition) act / rules.
- vi) The contractor will be directly responsible for payment of wages to his workmen more specifically described in the contract labour (regulation and abolition) act / rules. A pay roll sheet showing all the wage payments representative should be furnished to BHEL site office for record purpose. BHEL site in-charge may be intimated the date of disbursement of wages to the workmen engaged for the work; so that his representative can witness the same. The contractor shall indemnify BHEL against any statutory liability on account of dues to his workmen.
- vii) The bidders should be having **appropriate licence from the local Boiler Inspectorate if the job involves welding of pressure parts**. Also they should be having alloy steel / carbon steel high pressure welders (for PIG and submerged arc welding approved by the local Boiler Inspectorate for welding the pressure parts. The bidders should clearly indicate the same in the offer.



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03. **TERMS OF PAYMENT:**

- i) No advance shall be payable to the contractor unless specifically spelt out in the tender enquiry.
- ii) A minimum time of fifteen days will be required for the processing of bills presented and for their payment.
- iii) 90% of the contract value shall be payable against submission of three progressive running bills. Each of the billed amount shall correspond to the quantum of job actually completed and to that effect the claim can be preferred based on percentage allotments (to be given in the work order) made. This, however, has to be certified by the resident manager / engineer of the site. Balance 10% of contract value shall be paid after successful synchronisation / commissioning. BHEL at its discretion may further split up the percentage break up given in billing schedule and effect payment to suit site condition, cash flow requirement etc. according to progress of work.
- iv) The bidder should be financially sound to maintain the site establishment with regard to timely payment of wages to his workmen, arrangements of other inputs viz. T&P consumables etc.

Non-receipt of progressive payment from BHEL due to any reasons should not be a constraint for the smooth execution of the job at site.

- v) The bidder should make all out efforts to provide all inputs in consultation with BHEL engineers at site for completing the job in the specified time frame.
- vi) **No over run/escalation / idle charges** are payable against any services job under any circumstances. (in exceptional cases such claims may be considered provided BHEL's customer admits of such payment).
- vii) Extra work rate being admitted off by BHEL for other similar contracts have been stated on the page no.10 of this annexure.

For any additional work not envisaged in the scope of work or quantities exceeding the stated quantities, these rates shall be applicable.

- viii) All claims for extra works should be settled before claiming the final (10%) bill. The contractor should prefer the final claim with the certificate that 'no other claim is due from BHEL against this contract', without which final bill cannot be processed for payment.
- ix) For reduction / deletion / withdrawal in the scope of work proportionate deduction in contract value will be made.



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4. PERFORMANCE :

- i) As soon as job is awarded, the contractor has to submit a barchart to the resident engineer nominated showing the detailed schedule for all activities.

This schedule will be reviewed by the resident engineer from time to time to enable the contractor to recast the barchart matching the planned completion of the job.

- ii) It shall be the responsibility of the contractor's supervisor to distribute the work among his workmen deployed at site and get day to day activities executed as per BHEL's requirement.

BHEL's engineers / supervisors will check the correctness of the job done and will also give the daily programme of work to the contractors supervisor. The contractor has to ensure completion of daily programme and if there is any spill over, the same has to be completed by putting in same additional resources. (Technical guidance wherever required will be provided by BHEL).

- iii) The scope of work mentioned in this tender enquiry gives the broad outline of the actual work involved and it not is possible to mention all minute details of the work. For proper evaluation, the bidders may seek clarifications from this office. Or else, they may visit site and study the job content before submitting offers and be well informed and acquainted with the actual working and other prevalent conditions of the site, facilities available etc.

No claim will be entertained later on the ground of lack of knowledge.

- iv) The bidders have to furnish the bio-data and experience details of the site-in-charge, other key workmen, supervisors, senior technicians etc. to be deployed. In case of award of contract, the key members of the contractor's team may be interviewed at site by BHEL's resident engineer to ascertain their suitability. Replacement of non-acceptable personnel will have to be arranged by the contractor immediately at his own cost.

- v) **Penalty for the delay** in job completion will be 0.5% per day of delay, limiting to maximum 10% of the contract value, to be imposed on the contractor in case the delay in work completion is attributable to the lapses on the part of the contractor.

- vi) **Performance Guarantee** : Even though the work will be carried out under supervision of BHEL Engineers, the contractor shall guarantee against defects attributable to faulty workmanship or procedure



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adopted in the overhaul for items covered in the contract for a period of Six months from the date of re-commissioning of the set after the overhaul. The guarantee should cover all defects notified during this period and shall have to be attended free of cost immediately or at the time our clients are able to give shutdown of the set for the required period, when necessary. In case of failure of contractor to attend to the defect as and when required in time, BHEL shall arrange to attend the defects and the charges shall be levied to the contractor's account and shall be recoverable from the security deposit / progressive payments.

5. MISCELLANEOUS :

- i) The bidders shall submit a list of jobs being carried out by them or expected to be taken up by them during the period as called for in the participation of the tender.

Enclosure – 6.

- ii) The contractor has to engage a cleaning gang at site to ensure continuous cleaning of the floor at work site to protect the parts and to give safe access at the work site.
- iii) Obtaining licenses / permits / road permits in connection with the fulfillment of the contractual obligations is entirely the contractors responsibility. However, wherever applicable BHEL can only offer support to the extent possible.
- iv) For all matters bearing on the execution of the job at site, the decisions of the resident engineer are final and binding upon the contractor.
- v) The contractor has to retain suitable minimum work force at site for a period of one month from the date of completion or work / commissioning, to attend any small / miscellaneous problems, as leakage etc.
- vi) The contractor has to mobilize on a short notice (within 4 days) to attend any troubles encountered in the equipment worked on, during warranty period of six months.
- vii) After dismantling and during execution of the job, successful bidder has to suitably tag the components and sub-assemblies for traceability and store properly before final assembly. This is as per Doc. Nos. PSER:PMX:002:94 & PSER:PMX:001:94.
- viii) Process control of Special Processes like Welding and Heat Treatment shall be carried by successful bidder as per Doc. Nos. PSER:QLY:001:99, PSER:QLY:001:94 (3 VOL) and PSER:QLY: 003:99.



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- ix) Proper segregation, identification, tagging and up-keep of all dismantled items at work site during job execution have to be done by successful bidder.
- x) Successful bidder is to obtain necessary "No Dues" certificates before demobilisation from site.
- xi) Any NDT within the scope shall be as per Non-Destructive Examination manual (Doc. No. PSER:QLY:002:99 available with BHEL site engineer).
- xii) Unless otherwise mentioned specifically in this tender elsewhere, the storage & preservation of components, sub-assemblies, IMTEs, T&Ps, Construction Equipments etc, maintenance of stores, watch and ward of stores and BHEL site office is in the scope of the successful bidder.
- xiii) The successful bidder is to arrange extra illumination at work site to augment the existing site illumination if required to enable round-the-clock safe working.

Note: Any of the documents mentioned above can be referred before submission of tender at the office of PSER:SAS(CAL).

EXTRA WORK RATES CURRENTLY BEING ADMITTED BY BHEL, PS-ER

- A. The following all inclusive manhour rates will be applicable for modification, rectification work and services work.

(For all categories)

- a) Average single manhour rate including overtime if any, supervision, T&P, other site expenses and incidentals including consumables as certified by site-in-charge of BHEL.

Rs.18/- per manhour (Rs. Eighteen per manhour only)

- b) Same as above (a) but excluding supply of consumables by vendor.

Rs.12/- per manhour (Rs. Twelve per manhour only)

- B. The following all inclusive rates will be applicable for modification work involving welding of high pressure butt joints only. Extra work involving other types of joints will be done on the above manpower basis.

Unit rate per equivalent joint of size OD 63.5 mm x 6.3 mm thick

Average unit rate per equivalent joint,
including NDT and stress relieving.



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Carbon Steel

Rs.200/- (Rs. Two hundred only)

Alloy Steel

Rs.250/- (Rs. Two hundred fifty only)





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List of enclosure to be furnished by the bidder along with tender documents.

- | | | |
|----|---|----------------|
| a) | Experience certificate | Enclosure 1 * |
| b) | Banker's certificate of financial soundness as per BHEL' format | Enclosure 2 * |
| c) | IT / ST clearance certificate | Enclosure 3. |
| d) | Organisation Chart | Enclosure 4. * |
| e) | List of concurrent jobs held by the contractor / bidder. | Enclosure 5. |

(* Vendors registered with BHEL should submit documents in support of sl. no. c only.)

List of documents to be furnished by the contractor to the resident engineer before commencement of the jobs / during the execution.

- i) Barchart (if not furnished in the offer)
- ii) List of T&P being mobilized. Test / Calibration certificate with date of validity for lifting / pulling devices and measuring / test instrument (if not furnished in the offer).
- iii) Category wise list of manpower being mobilized.
- iv) List of consumables being mobilized.
- v) Licence from the department of Labour under contract Labour (Regulation & Abolition) Act / Proof of Application for Licence.
- vi) ESI coverage, if applicable.
- vii) Insurance certificate covering the site personnel.
- viii) Proof of remittance of provident fund to the concerned authorities, for all workmen employed for this job.
- ix) Third party insurance coverage.



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ANNEXURE - VI

QUESTIONNAIRE TO BE FILLED IN BY THE BIDDER, SIGNED WITH DATE AND SEAL, AND TO BE RETURNED ALONG WITH TECHNICAL TENDER.

BIDDER'S NON-ACCEPTANCE OF TENDER REQUIREMENTS CAN DISQUALIFY HIS BID FOR OPENING OF "PRICE BID"

TENDER NO: **PSER:SCT:** DATE:/...../20.....

- 01 NAME OF THE ORGANISATION.
ADDRESS, TELEPHONE / FAX NO. :
.....
.....
.....
.....

- 02 MODE AND PARTICULARS OF EMD
ENCLOSED

- 03 BANKER'S CERTIFICATE FOR FINANCIAL : Enclosed / Not enclosed.
SOUNDNESS / CAPABILITY TO
UNDERTAKE WORK.

- 04. IS THE FIRM HAVING VALID TESTED / : YES / NO.
CALIBRATED TOOLS AND MEASURING
INSTRUMENT REQUIRED FOR THIS TYPE
OF JOB AND EQUIPMENT.

- 05. ORGANISATION CHART / MANPOWER : Enclosed / Not enclosed.

- 06. STATUTORY REQUIREMENTS AS PER :
RELEVANT ACTS WITH LATEST
AMENDMENT (Pl. tick out)
 - i) LICENCE FOR EMPLOYING : Will be complied with
CONTRACT LABOUR
 - ii) MINIMUM WAGES ACT : - do -
 - iii) INSURANCE OF SITE PERSONNEL : - do -
EMPLOYED.
 - iv) WORKMEN'S COMPENSATION ACT : - do -

 - v) THIRD PARTY INSURANCE : Will be complied with
 - vi) EMPLOYEE'S LIABILITY ACT
 - vii) INDUSTRIAL DISPUTES ACT : - do -
 - viii) EMPLOYEE'S PROVIDENT FUNDS : - do -
ACT



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- ix) CONTRACT LABOUR : - do -
(REGULATION AND ABOLITION)
ACT / RULES
- x) SAFETY APPLIANCES / DEVICES : - do -
FOR WORKMEN
- xi) BOILER INSPECTORATE : - do -
- xii) ARBITRATION ACT : - do -
07. AGREEABILITY TO "NO OVERRUN : Agreeable
CHARGES" CLAUSE
08. AGREEABILITY TO "NO IDLE TIME : Agreeable
CHARGES" CLAUSE
09. AGREEABILITY TO EXECUTE FULL : Agreeable
SCOPE OF WORK OF TENDER ENQUIRY
(INCLUDING RELATED MINOR
ACTIVITIES).

Signature of the bidder :

Date :

Name of the person signing :

Designation :

SEAL
