

## **E - TENDER SPECIFICATION**

**NO: BHE:PW:NGP:PUR:BTP COH:3200**

**Annual Overhauling of 500MW, KWU design BHEL make Turbo Generator set including machining of Exciter rotor slip ring area and Exciter overhauling and TDBFP - Drive Turbines of Unit No.6 at Ukai TPS.**

### **VOLUME – IA**

#### **TECHNICAL BID**

- **Notice Inviting Tender,**
- **Volume-IA : Technical Conditions of Contract-,**
- **Volume-IB : Special conditions of Contract,**
- **Volume-IC : General conditions of Contract**
- **Volume-ID : Forms & Procedures**



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

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I-A	Technical Conditions of Contract	Vol-IA-3200
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**E-Tender Specification Issue Details**

**E-Tender Specification No: BHE:PW:NGP:PUR:BTP COH:3200**

**NAME OF THE WORK:**

**Annual Overhauling of 500MW, KWU design BHEL make Turbo Generator set including machining of Exciter rotor slip ring area and Exciter overhauling and TDBFP - Drive Turbines of Unit No.6 at Ukai TPS.**

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR                Refer Notice Inviting Tender  
TENDER SUBMISSION .

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

M/s. ....

.....

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

3200

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



Ref: BHE:PW:NGP:PUR:BTP COH:3200

**NOTICE INVITING E-TENDER (NIT)**

**NOTE: BIDDER MAY DOWNLOAD/ UPLOAD THE TENDER/ OFFER FROM/ON BHEL E-PROCUREMENT PORTAL → <https://eprocurebhel.co.in>**

To,

Dear Sir/Madam,

**Sub : NOTICE INVITING E-TENDER**

Sealed offers in two part bid system (National competitive bidding (NCB) ~~or International Competitive Bidding (ICB)~~ are invited from reputed & experienced bidders (meeting [PRE QUALIFICATION CRITERIA](#) as mentioned in Annexure-1) for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Following points relevant to the tender may please be noted and complied with.

**1.0 Salient Features of NIT**

S No.	ISSUE	DESCRIPTION	
i	E-TENDER NUMBER	BHE:PW:NGP:PUR:BTP COH:3200	
ii	Broad Scope of job	Annual Overhauling of 500MW, KWU design BHEL make Turbo Generator set including machining of Exciter rotor slip ring area and Exciter overhauling and TDBFP - Drive Turbines of Unit No.6 at Ukai TPS	
iii	DETAILS OF TENDER DOCUMENT		
A	Volume-IA	Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc	Applicable
B	Volume-IB	Special Conditions of Contract (SCC)	Applicable
C	Volume-IC	General Conditions of Contract (GCC)	Applicable
D	Volume-ID	Forms and Procedures	Applicable
E	Volume-IE	Drawings	Applicable
F	Volume-II	Price Bid as specified in E-Procurement Portal	Applicable
iv	Issue of Tender Documents	Tender documents will be available for downloading from BHEL website ( <a href="http://www.bhel.com">www.bhel.com</a> ) or e-procurement portal ( <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> ) as per schedule below: Start :23-12-25, Time :17:00 Hrs Closes: 26-12-25, Time: 13:00 Hrs Brief information of the tenders shall also be available at central public procurement portal. ( <a href="https://eprocure.gov.in/epublish/app">https://eprocure.gov.in/epublish/app</a> )	Applicable
v	DUE DATE & TIME OF OFFER	Date: 26-12-25, Time: 13.00 Hrs • Place: on E-Tender Portal <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a>	Applicable

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S No.	ISSUE	DESCRIPTION	
	<b>SUBMISSION</b>		
vi	<b>OPENING OF TENDER (Techno-Commercial Bid)</b>	<p><b>Date: 26-12-25, Time: 17.00 Hrs</b></p> <p>Notes:</p> <p>(1) In case the due date of opening of tender becomes a non-working day, then the due date &amp; time of offer submission and opening of tenders get extended to the next working day.</p> <p>(2) Bidder may depute representative to witness the opening of tender. For e-Tender, Bidder may witness the opening of tender through e-Procurement portal only.</p>	Applicable
vii	<b>EMD AMOUNT</b>	<p><b>One Time EMD submitted in PSWR Region</b></p> <p><b>OR</b></p> <p>Bid Security Declaration to be submitted by bidders</p> <p><b>OR</b></p> <p>MSE Certificate for EMD Exemption</p>	Applicable
viii	<b>COST OF TENDER</b>	Free	
ix	<b>LAST DATE FOR SEEKING CLARIFICATION</b>	<p>One day before due date of offer submission.</p> <p>Along with soft version also, addressing to undersigned &amp; to others as per contact address given below:</p> <p>1) Name: Chaitram Patel Designation: Engineer Deptt: Purchase Address: Floor no. 5 &amp; 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001 Mobile-8055451608 Email : <a href="mailto:chaitram@bhel.in">chaitram@bhel.in</a></p> <p>2) Name: Varun Vaidya Designation: Manager Deptt: Purchase Address: Floor no. 5 &amp; 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001 Mobile-9792334127 Email : <a href="mailto:vvaidya@bhel.in">vvaidya@bhel.in</a></p>	Applicable
x	<b>SCHEDULE OF Pre Bid Discussion (PBD)</b>	NA	Not Applicable
xi	<b>INTEGRITY PACT &amp; DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)</b>	<p><del>1) Dr. Sarat Kumar Acharya, Ex-CMD, NLC</del></p> <p><del>2) Shri R. Mukundan, IRPS (Retd.)</del></p> <p><del>3) Shri Madan Lal Meena, IAS (Retd.)</del></p>	Applicable
xii	<b>Latest updates</b>	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage	

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S No.	ISSUE	DESCRIPTION
		( <a href="http://www.bhel.com">www.bhel.com</a> -->Tender Notifications →View Corrigendum), Central Public Procurement portal ( <a href="https://eprocure.gov.in/epublish/app">https://eprocure.gov.in/epublish/app</a> ) & on e-tender portal <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> and not in the newspapers. Bidders to keep themselves updated with all such information.

- 2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed digitally using Class III DSC & uploaded in E-Procurement Portal, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**
- 3.0 Not Used
- ~~4.0 Unless specifically stated otherwise, bidder shall deposit EMD as per clause 1.9 of General Conditions of Contract.~~

For Electronic Fund Transfer the details are as below :-

NAME OF THE BENEFICIARY	BHARAT HEAVY ELECTRICALS LTD
ADDRESS OF THE COMPANY	5 <sup>th</sup> Floor, SHREE MOHINI COMPLEX 345, KINGSWAY, NAGPUR
NAME OF BANK	STATE BANK OF INDIA
NAME OF BANK BRANCH AND BRANCH CODE	SBI, NAGPUR MAIN BRANCH , CODE-00432
CITY	NAGPUR
ACCOUNT NUMBER	40227423158
ACCOUNT TYPE	MC-C C Clean (C&I)
IFSC CODE OF THE BENEFICIARY BANK BRANCH	SBIN0000432
MICR CODE OF THE BANK BRANCH	440002002

~~(Note :- In case of E-Tenders, proof of remittance of EMD should be uploaded in the E-Procurement Portal and originals, as applicable, shall be sent to the officer inviting tender within a reasonable time, failing which the offer is liable to be rejected.~~

**5.0 Procedure for Submission of Tenders:**

This is an E-tender floated online through our E-Procurement Site (<https://eprocurebhel.co.in>). The bidder should respond by submitting their offer online only in our e-Procurement platform at (<https://eprocurebhel.co.in>). Offers are invited in two-parts only.

**Documents Comprising the e-Tender**

The tender shall be submitted online ONLY EXCEPT EMD (in physical form) as mentioned below:

**a. Technical Tender (UN priced Tender)**

All Technical details (e.g. Eligibility Criteria requested (as mentioned below)) should be attached in e-tendering module, failing which the tender stands invalid & may be REJECTED. Bidders shall furnish the following information along with technical tender (preferably in pdf format):

- i. Earnest Money Deposit (EMD) furnished in accordance with NIT Clause 4.0. ~~Alternatively, documentary evidence for claiming exemption as per clause 29 of NIT.~~
- ii. Technical Bid (without indicating any prices).

**b. Price Bid:**

- i. Prices are to be quoted in the attached Price Bid format online on e-tender portal.
- ii. The price should be quoted for the accounting unit indicated in the e-tender document.

**Note:**

- It is the responsibility of tenderer to go through the Tender document to ensure furnishing all required documents in addition to above, if any. Any deviation would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.
- A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.
- A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.

**DO NOT'S**

Bidders are requested NOT to submit the hard copy of the Bid. In case offer is sent through hard copy/fax/telex/cable/electronically in place of e-tender, the same shall not be considered. **Also, uploading of the price bid in prequalification bid or technical bid may RESULT IN REJECTION of the tender.**

**Digital Signing of e-Tender**

Tenders shall be uploaded with all relevant PDF/zip format. The relevant tender documents should be uploaded by an authorized person having Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION digital signature certificate (DSC).

**The Requirement:**

1. A PC with Internet connectivity &
2. DSC (Digital Signature Certificate) (**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**)

BHEL has finalized the e-procurement service Provider-:

**NIC PORTAL (<https://eprocurebhel.co.in>)**

**For E-PROCUREMENT ASSISTANCE & TRAINING, NIC PORTAL HELPDESK CONTACTS AS PER FOLLOWING:**



For any technical related queries, please call at 24 x 7 Help Desk Number  
0120-4001 002  
0120-4200 462  
0120-4001 005  
0120-6277 787

1. Peter Raj, NIC, Ph: 9942069052

Email Support: [support-eproc@nic.in](mailto:support-eproc@nic.in)

Other details/update yourself from : <https://eprocurebhel.co.in>

The process of utilizing e-procurement necessitates usage of **DSC (Digital Signature Certificate) (Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION)** and you are requested to procure the same immediately, if not presently available with you. Please note that only with DSC, you will be able to login the e-procurement secured site and take part in the tendering process.

The contact details of the DSC certifying authority:-

please refer <http://www.mca.gov.in/> → MCA SERVICES → DSC SERVICES

Vendors are requested to go through seller manual available on <https://eprocurebhel.co.in>.

**~~Procedure for Submission of Tenders (To be used in case of Paper bid only):~~** The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:

- ~~PART-I consisting of 'PART-I A (Techno Commercial Bid)' & 'PART-I B (EMD)' in two separate sealed and superscribed envelopes (ENVELOPE-I & ENVELOPE-II)~~
- ~~PART-II (Price Bid) — in sealed and superscribed envelope (ENVELOPE-III)~~
- ~~One set of tender documents shall be retained by the bidder for their reference~~

~~6.0 The contents for ENVELOPES and the superscription for each sealed cover/Envelope are as given below. (All pages to be signed and stamped) (To be used in case of Paper bid only):~~

Sl.no.	Description	Remarks
	<b>Part-I A</b>	
	<b><del>ENVELOPE — I superscribed as:</del></b> <del>PART-I (TECHNO COMMERCIAL BID)</del> <del>TENDER NO:</del> <del>NAME OF WORK:</del> <del>PROJECT:</del> <del>DUE DATE OF SUBMISSION:</del>  <b><del>CONTAINING THE FOLLOWING:-</del></b>	
i. —	<del>Covering letter/Offer forwarding letter of Tenderer.</del>	
ii. —	<del>Duly filled in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.</del>	

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	<p><b><u>Note:</u></b></p> <p>a. In case of any deviation, the same should be submitted separately for technical &amp; commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained.</p> <p>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.</p> <p>i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL</p> <p>ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</p>	
iii.	Supporting documents/ annexure/ schedules/ drawing etc. as required in line with Pre-Qualification criteria.	
	It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph. no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc. pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc. as required under this Tender Specification/NIT	
vii.	Notice inviting Tender (NIT)	
viii.	Volume – I A : Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc.	
ix.	Volume – I B : Special Conditions of Contract (SCC)	
x.	Volume – I C : General Conditions of Contract (GCC)	
xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii.	Any other details preferred by bidder with proper indexing.	

	<b>PART - I B</b>	
	<p><b><u>ENVELOPE – II superscribed as:</u></b></p> <p>PART - I (EMD)</p> <p>TENDER NO:</p> <p>NAME OF WORK:</p> <p>PROJECT:</p> <p>DUE DATE OF SUBMISSION:</p>	

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	<b>CONTAINING THE FOLLOWING:-</b>	
	Earnest Money Deposit (EMD) in the form as indicated in this Tender	

	<b>PART-II</b>	
	<b>PRICE BID</b> consisting of the following shall be enclosed	
	<b><u>ENVELOPE-III</u></b> superscribed as: PART-II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:	
	<b>CONTAINING THE FOLLOWING</b>	
i	Covering letter/Offer forwarding letter of Tenderer enclosed in Part-I	
ii	Volume II — PRICE BID ( Duly Filled in Schedule of Rates — rate/price to be entered in words as well as figures)	

	<b>OUTER COVER</b>	
	<b><u>ENVELOPE-IV</u></b> (MAIN ENVELOPE / OUTER ENVELOPE) superscribed as: TECHNO-COMMERCIAL BID, PRICE BID & EMD TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION:	
	<b>CONTAINING THE FOLLOWING:</b>	
i	○ Envelopes-I ○ Envelopes-II ○ Envelopes-III	

- SPECIAL NOTE: All documents/ annexures to be submitted should be uploaded in respective places in the E-Tender portal as per the list mentioned given in this NIT. BHEL shall not be responsible for any in-complete documents.**

7.0 Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.

- 8.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).

9.0 Assessment of Capacity of Bidders:

Bidder's capacity for executing the job under tender shall be assessed based on its 'LOAD and PERFORMANCE' and 'AVERAGE ANNUAL TURNOVER', as per the following:

- I. LOAD: Load takes into consideration ALL the contracts of the Bidder under execution with BHEL Regions, irrespective of whether they are similar to the tendered scope or not. The cut off month for reckoning 'Load' shall be the 3<sup>rd</sup> Month preceding the month corresponding to the 'latest date of bid submission', in the following manner -  
(Note: For example, if latest bid submission is in Jan 2017, then the 'load' shall be calculated up to and inclusive of Oct 2016)

Total number of Packages in hand = Load (P)

Where 'P' is the sum of all unit wise identified packages (refer table-1) under execution with BHEL Regions as on the cut off month defined above, including packages yet to be commenced, excepting packages which are on Long Hold.

- II. PERFORMANCE: Here 'Monthly Performance' of the bidder for all the packages (under execution/ executed during the 'Period of Assessment' in all Power Sector Regions of BHEL) SIMILAR to the packages covered under the tendered scope, excepting packages not commenced shall be taken into consideration. The 'Period of Assessment' shall be 6 months preceding and including the cut off month. The cut off month for reckoning 'Period of Assessment' shall be the 3<sup>rd</sup> Month preceding the month corresponding to 'latest date of bid submission', in the following manner:

(Note: For example, if 'latest date of bid submission' is in Jan 2017, then the 'performance' shall be assessed for a 6 months' period up to and inclusive of Oct 2016 (i.e. from May 2016 to Oct 2016), for all the unit wise identified packages (refer Table I))

- i). Calculation of Overall 'Performance Rating' for 'Similar Package/Packages' for the tendered scope under execution at Power Sector Regions for the 'Period of Assessment':

This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for all the similar Package/packages', divided by the total number of Package months for which evaluation should have been done, as per procedure below:

- a)  $P_1, P_2, P_3, P_4, P_5, \dots, P_N$  etc. be the packages (under execution/ executed during the 'Period of Assessment' in all Regions of BHEL) SIMILAR to the packages covered under the tendered scope, excepting packages not commenced. Total number of similar packages for all Regions =  $P_T$  (i.e.  $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$ )
- b) Number of Months ' $T_1$ ' for which 'Monthly Performance Evaluation' as per relevant formats, should have been done in the 'Period of Assessment' for the corresponding similar package  $P_1$ . Similarly  $T_2$  for package  $P_2$ ,  $T_3$  for package  $P_3$ , etc. for the tendered scope. Now calculate cumulative total months ' $T_T$ ' for total similar Packages ' $P_T$ ' for all Regions (i.e.  $T_T = T_1 + T_2 + T_3 + T_4 + \dots + T_N$ )
- c) Sum ' $S_1$ ' of 'Monthly Performance Evaluation' Scores ( $S_{1-1}, S_{1-2}, S_{1-3}, S_{1-4}, S_{1-5}, \dots, S_{1-T_1}$ ) for similar package  $P_1$ , for the 'period of assessment' ' $T_1$ ' (i.e.  $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots + S_{1-T_1}$ ). Similarly,  $S_2$  for package  $P_2$  for period  $T_2$ ,  $S_3$  for package  $P_3$  for period  $T_3$  etc. for the tendered scope for all Regions. Now

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calculate cumulative sum 'S<sub>T</sub>' of 'Monthly Performance Evaluation' Scores for total similar Packages 'P<sub>T</sub>' for all Regions (i.e. 'S<sub>T</sub>'= S<sub>1</sub>+ S<sub>2</sub>+ S<sub>3</sub>+ S<sub>4</sub>+ S<sub>5</sub>+.... S<sub>N</sub>.)

- $$= \frac{\text{Aggregate of Performance scores for all similar packages in all the Regions}}{\text{Aggregate of months for each of the similar packages for which performance should have been evaluated in all the Regions}}$$
- $$= \frac{S_T}{T_T}$$

- | Sl. No. | Item Description  | Details for all Regions  |   |  |  |  |                                |  | Total   |
|---------|---|--|---|--|--|--|--------------------------------|--|---|
| (i)     | (ii)  | (iii)  | (iv)  | (v)  | (vi)   | (vii)  | (viii)                         | (ix)   | (x)   |
| 1       | Similar Packages for all Regions → (under execution/ executed during period of assessment)  | P <sub>1</sub>   | P <sub>2</sub>  | P <sub>3</sub>   | P <sub>4</sub>   | P <sub>5</sub>   | ...                            | P <sub>N</sub>   | Total No. of similar packages for all Regions = P <sub>T</sub><br>i.e. Sum (Σ) of columns (iii) to (ix) |
| 2       | Number of Months for which 'Monthly Performance Evaluation' as per relevant formats should have been done in the 'period of assessment' for corresponding Similar Packages ( as in row 1) | T <sub>1</sub>   | T <sub>2</sub>  | T <sub>3</sub>   | T <sub>4</sub>   | T <sub>5</sub>   | ...                            | T <sub>N</sub>   | Sum (Σ) of columns (iii) to (ix)<br><br>= T <sub>T</sub>  |
| 3       | Monthly performance scores for the corresponding period (as in Row 2)   | S <sub>1-1</sub> ,<br>S <sub>1-2</sub> ,<br>S <sub>1-3</sub> ,<br>S <sub>1-4</sub> ,<br>...<br>S <sub>1-T1</sub> | S <sub>2-1</sub> ,<br>S <sub>2-2</sub> ,<br>S <sub>2-3</sub> ,<br>S <sub>2-4</sub> , ...<br>S <sub>2-T2</sub> | S <sub>3-1</sub> ,<br>S <sub>3-2</sub> ,<br>S <sub>3-3</sub> ,<br>S <sub>3-4</sub> ,<br>...<br>S <sub>3-T3</sub> | S <sub>4-1</sub> ,<br>S <sub>4-2</sub> ,<br>S <sub>4-3</sub> ,<br>S <sub>4-4</sub> ,<br>...<br>S <sub>4-T4</sub> | S <sub>5-1</sub> ,<br>S <sub>5-2</sub> ,<br>S <sub>5-3</sub> ,<br>S <sub>5-4</sub> ,<br>...<br>S <sub>5-T5</sub> | ..<br>...<br>...<br>...<br>... | S <sub>N-1</sub> ,<br>S <sub>N-2</sub> ,<br>S <sub>N-3</sub> ,<br>S <sub>N-4</sub> ,<br>...<br>S <sub>N-TN</sub> | -----   |
| 4       | Sum of Monthly Performance scores of the corresponding Package for the corresponding period (as in row-3)   | S <sub>1</sub>   | S <sub>2</sub>  | S <sub>3</sub>   | S <sub>4</sub>   | S <sub>5</sub>   | ...                            | S <sub>N</sub>   | Sum (Σ) of columns (iii) to (ix)<br><br>= S <sub>T</sub>  |

- This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for ALL the packages, divided by the total number of Package months for which evaluation should have been done. 'R<sub>BHEL</sub>' shall be calculated subject to availability of 'performance scores' for at least 6 'package months' in the order of precedence below:

- Registered Office: BHEL House, Siri Fort, New Delhi – 110 049, India  
Website: [www.bhel.com](http://www.bhel.com)

- c) 24 months preceding and including the cut-off month

In case,  $R_{BHEL}$  cannot be calculated as above, then Bidder shall be treated as 'NEW VENDOR'. Further eligibility and qualification of this bidder shall be as per definition of 'NEW VENDOR' described in 'Explanatory Notes'.

iii). Factor "L" assigned based on Overall Performance Rating ( $R_{BHEL}$ ) at Power Sector Regions:

Sl. no.	Overall Performance Rating ( $R_{BHEL}$ )	Corresponding Value of 'L'
1	$\leq 60$	NA
2	$> 60$ and $\leq 65$	0.5
3	$> 65$ and $\leq 70$	0.45
4	$> 70$ and $\leq 75$	0.4
5	$> 75$ and $\leq 80$	0.375
6	$> 80$ and $< 90$	0.35
7	$\geq 90$	0.33

- iv). Performance Systems: The performance rating as mentioned in II (i) and (ii) above, shall be calculated as per Online Systems i.e. Contractor Performance Evaluation System (CPES) and Safety Performance Evaluation System (HSEPES). The scores assigned in HSEPES shall be scaled down to 10 and assigned in CPES against the category "HSE" (mentioned in Form F-15).

III. i) 'Assessment of Capacity based on 'LOAD and PERFORMANCE':

- a) 'Assessment of Capacity of Bidder' is based on the Maximum number of packages for which a vendor is eligible, considering the performance scores of similar packages, as below:

Max number of packages  $P_{Max} = (R_{BHEL} - 60)$  divided by corresponding value of 'L', i.e.  $(R_{BHEL} - 60)/L$

Note:

- i). In case the value of  $P_{Max}$  results in a fraction, the value of  $P_{Max}$  is to be rounded off to next whole number
- ii). For  $R_{BHEL} = 60$ ,  $P_{Max} = '1'$

The Bidder shall be considered 'Qualified' on 'Performance basis' as per 'Assessment of Capacity of Bidder' for the subject Tender if  $P \leq P_{Max}$   
(Where P is calculated as per clause 'i' above)

- b) In addition to above, the contractor shall be considered disqualified for ongoing tender(s) of BHEL, in case contractor fails to obtain an overall average score of 6 or more than 6 (six) (in the scaled down scores of HSEPES) out of 10, in a period of '6 months preceding and including the cut-off month'. The period of '6 months preceding and including the cut-off month' can be extended to 12 months and further to 24 months, to account for 'performance scores' for at least 6 'package months'. Bidders who did not qualify this condition shall not be considered under the provisions of clause 9 IV (iv) of NIT.

ii) Assessment of Capacity based on 'AVERAGE ANNUAL TURNOVER':

If the 'value of contracts in hand' across all PS Regions by a contractor is less than the product of "annual average turnover of the Contractor and multiplying factor", then such bidder shall be considered qualified on 'Annual Average Turnover basis'. The 'value of contracts in hand' will be computed by summing up "50% of the annualized awarded value of each contract" unless performance evaluation is not closed in the online CPES.

Based on the performance rating of the Contractor, the above mentioned multiplying factor shall be as below:

Sl. no	Overall Performance Rating ( $R_{BHEL}$ )	(Multiplying factor to Average Annual Turnover)
1	$\geq 60$ and $\leq 65$	1
2	$> 65$ and $\leq 70$	1.5
3	$> 70$ and $\leq 75$	2
4	$> 75$ and $\leq 80$	2.5

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5	> 80	3
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'Assessment of Capacity of Bidder':

The bidder will be considered qualified for the tender if it qualifies on 'Load and Performance basis' as well as on 'Average Annual Turnover basis'.

However, 'New Vendor' / 'Consortium Partner' shall be considered qualified based on only 'Load and Performance' (they will be regarded pre-qualified on 'Average Annual Turnover' criteria).

**IV. Explanatory note:**

i). Similar package means Boiler or ESP or Piping or Turbine or Civil or Structure or Electrical or C&I etc. at the individual level irrespective of rating of Plant and irrespective of whether the subject tender is a single package or as part of combined/composite packages. Normally Boiler, ESP, Piping, Turbine, Electrical, C&I, Civil, Structure etc. is considered individual level of package. For example, in case the tendered scope is a Boiler Vertical Package comprising of Boiler, ESP and Power Cycle Piping (i.e. the 'identified packages as per Table-1 below), the 'PERFORMANCE' part against sl.no. II above, needs to be evaluated considering all the identified packages (i.e. Boiler, ESP and Power Cycle Piping) and finally the Bidder's capacity to execute the tendered scope is assessed in line with III above.

ii). Identified Packages (Unit wise)

Table-1

Civil	Electrical and C&I	Mechanical
i). Enabling works	i). Electrical	i). Boiler & Aux (All types including CW Piping if applicable)
ii). Pile and Pile Caps	ii). C&I	ii). Power Cycle Piping/Critical Piping
iii). Civil Works including foundations	iii). Others (Elect. and C&I)	iii). ESP
iv). Structural Steel Fabrication & Erection	iv). Electrical Enabling Works	iv). LP Piping
v). Chimney		v). Steam Turbine Generator set & Aux
vi). Cooling Tower		vi). Gas Turbine Generator set & Aux
vii). Others (Civil)		vii). Hydro Turbine Generator set & Aux
		viii). Turbo Blower (including Steam Turbine)
		ix). Material Management
		x). FGD
		xi). ACC
		xii). Others (Mechanical)

iii). Bidders who have not been evaluated for at least six package months in the last 24 months preceding and including the Cut-off month in the online BHEL system for contractor performance evaluation in BHEL PS Regions, shall be considered "NEW VENDOR".

A 'NEW VENDOR' shall be considered qualified subject to satisfying all other tender conditions.

A 'NEW VENDOR' if awarded a job (of package/packages identified under this clause) shall be tagged as "FIRST TIMER" on the date of first LOI from BHEL.

The "FIRST TIMER" tag shall remain till completion of all the contracts against which vendor has been tagged as First Timer or availability of 6 evaluation scores within last 24 months preceding and including the Cut-off month in the online BHEL system for contractor performance evaluation in BHEL PS Regions.

A Bidder shall not be eligible for the next job as long as the Bidder is tagged as "FIRST TIMER" excepting for the Tenders which have been opened on or before the date of the bidder being tagged as 'FIRST TIMER'.

After removal of 'FIRST TIMER' tag, the Bidder shall be considered 'QUALIFIED' for the future tenders subject to satisfying all other tender conditions including 'Assessment of Capacity of Bidders'.

- iv). Consequent upon applying the criteria of 'Assessment of Capacity of Bidders' detailed above on all the bidders qualified against Technical and Financial Qualification criteria, if the number of qualified bidders reduces to less than four, then for further processing of the Tender, BHEL at its discretion reserves the right to also consider the bidders who are "not qualified" as per criteria of 'Assessment of Capacity of Bidders' and for this, procedure described in following three options shall be followed:

- a) All the bidders having Overall Performance Rating ('RBHEL')  $\geq 60$  shall be considered qualified against criteria of 'Assessment of Capacity of Bidders'.
- b) If even after using option "a", the number of qualified bidders remains less than four, then in addition to bidders considered as per option "a", "First timer" bidders having average of available performance scores  $\geq 60$  upto and including the Cut Off month shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.
- c) If even after using option "a" and "b", the number of qualified bidders remains less than four, then in addition to bidders considered as per option "a" and "b", "First timer" bidders for whom no performance score is available in the system upto and including the Cut Off month, shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.
- d) If even after using option "a", "b" and "c" the number of qualified bidders remains less than four, remaining bidders shall be "listed" as per their descending order of Overall Performance Rating ('RBHEL') or average of available performance scores for "First timer" bidders upto and including the Cut Off month.

Bidders as per option "a", "b", "c" and additional top bidders as "listed" above shall be considered qualified against criteria of 'Assessment of Capacity of Bidders' to make the total numbers of qualified bidders as four.

In case, from the "listed" bidders, more than 1 "listed" bidder are having the same average performance score, then all such bidders shall be considered.

Example-

If 3 bidders are considered from "a", "b" and "c".

From remaining "listed" bidders, 3 top bidders have same average performance scores. Then all 3 "listed" bidders shall be considered.

Note:- In case, the number of bidders qualified against Technical and Financial Qualification criteria itself is less than four, then all bidders shall be considered qualified against criteria of 'Assessment of Capacity of Bidders' for further processing of tender.

- v). 'Under execution' shall mean works in progress as per the following:
- a. Up to execution of 90% of anticipated Contract Value in case of Civil, MM, Structural and Turbo Blower Packages
  - b. Up to Steam Blowing in case of Boiler/ESP/Piping Packages
  - c. Up to Synchronization in all Balance Packages

Note: BHEL at its discretion can extend (or reduce in exceptional cases in line with Contract conditions) the period defined against (a), (b) and (c) above, depending upon the balance scope of work to be completed.

- vi). Contractor shall provide the latest contact details i.e. mail-ID and Correspondence Address to SCT Department, so that same can be entered in the Contractor Performance Evaluation System, and in case of any change/discrepancy same shall be informed immediately. Login Details for viewing scores in Contractor Performance Evaluation System shall be provided to the Contractor by SCT Department.
- vii). Performance Evaluation for Activity Month shall be completed in Evaluation Month (i.e. month next to Activity Month) or in rare cases in Post Evaluation Month (i.e. month next to Evaluation Month) after approval from Competent Authority. In case scores are not acceptable, Contractor can submit Review Request to GM Site/ GM Project latest by 27<sup>th</sup> of Evaluation Month or 5 days after approval of score, whichever is later. However, acceptance/rejection of 'Review Request' solely depends on the discretion of GM Site/GM Project. After acceptance of Review Request, evaluation score shall be reviewed at site and the score after completion of review process shall be acceptable and binding on the contractor.

- viii). Project on Hold due to reasons not attributable to bidder -

- a. Short hold: Evaluation shall not be applicable for this period, however, Loading will be considered.



- b. Long hold: Short hold for continuous six months and beyond or hold on account of Force Majeure shall be considered as Long Hold. Evaluation as well as Loading shall not be considered for this period.

Performance evaluation as specified above in this clause is applicable to Prime bidder and Consortium partner (or Technical tie up partner) for their respective scope of work

- 10.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, 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.
- 11.0 For any clarification on the tender document, the bidder may seek the same in writing or through e-mail and/or through e-procurement portal, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 12.0 BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 13.0 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, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.
- 14.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
- 15.0 Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), **if applicable**, along with techno-commercial bid. This pact shall be considered as a preliminary qualification for further participation. **The names and other details of Independent External Monitor (IEM) for the subject tender is as given at point (1) above.**

**"Integrity Pact (IP)"**

- (a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl	IEM	Email
1	Dr. Sarat Kumar Acharya, Ex-CMD, NLC	lem1@bhel.in
2	Shri R. Mukundan, IRPS (Retd.)	<a href="mailto:lem2@bhel.in">lem2@bhel.in</a>

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3	Shri Madan Lal Meena, IAS (Retd.)	lem3@bhel.in
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- (b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/ three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
- (c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only

Note:

No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:

<b>Name:</b>	Sh V K Arya	Varun Vaidya/ Manager (Purchase)
<b>Dept:</b>	Purchase Department	
<b>Address:</b>	Floor No. 5 & 6, Shreemohini Complex, 345 Kingsway, Nagpur-440001	
<b>Email:</b>	<a href="mailto:vkarya@bhel.in">vkarya@bhel.in</a>	<a href="mailto:vvaidya@bhel.in">vvaidya@bhel.in</a>
<b>Phone:</b>	-	9792334127

- 16.0 The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre-Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD.
- 17.0 In case BHEL decides on a 'Public Opening', the date & time of opening of the sealed PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorized representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful/Disqualified bidders under intimation to the respective bidders.
- 18.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.
- 19.0 **Reverse Auction:** "BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com) on "supplier registration page".) for this tender. RA shall be conducted among all the techno-commercially qualified bidders.
- Price Bids of all the techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.
- 20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.

21.0 In case the bidder is an “Indian Agent of Foreign Principals”, ‘Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.

22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.

**23.0 VOID**

24.0 The bidder shall submit/upload documents in support of possession of ‘Qualifying Requirements’ duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.

25.0 The bidder may have to produce original document for verification if so decided by BHEL.

26.0 The consultant / firm (and any of its affiliates) shall not be eligible to participate in tender(s) for the related works or services for the same project, if they were engaged for the consultancy services.

27.0 Guidelines/rules in respect of Suspension of Business dealings, Vendor evaluation format, Quality, Safety & HSE guidelines, Experience Certificate, etc. may undergo change from time to time and the latest one shall be followed. The abridged version of extant ‘Guidelines for suspension of business dealings with suppliers/contractors’ is available on [www.bhel.com](http://www.bhel.com) on “**supplier registration page**”.

28.0 The offers of the bidders who are on the banned/ hold list and also the offer of the bidders, who engage the services of the banned/ hold firms, shall be rejected. The list of **banned/ hold firms** is available on BHEL web site [www.bhel.com](http://www.bhel.com).

28.1 Integrity commitment, performance of the contract and punitive action thereof:

**28.1.1 Commitment by BHEL:**

BHEL commits to take all measures necessary to prevent corruption in connection with the tender Process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

**28.1.2 Commitment by Bidder/ Supplier/ Contractor:**

- (i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
- (ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

- (iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the prices or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extent guidelines of the company available on [www.bhel.com](http://www.bhel.com) and / or under applicable legal provisions.

#### 29.0 Micro and Small Enterprises (MSE)

Any Bidder falling under MSE 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 MSE	SC/ST owned	Women owned	Others (excluding SC/ ST & Women Owned)
Micro			
Small			

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

- a) MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) only if they submit along with the offer, attested copies of either Udyam Registration Certificate or EM-II certificate having deemed validity (five years from the date of issue of acknowledgement in EM-II) or valid NSIC certificate or Udyog Aadhar Memorandum (UAM) & Acknowledgement or EM-II Certificate along with attested copy of a CA certificate (**format enclosed as Annexure – 3**) 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 last date of Technical Bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders. No benefits shall be applicable for this enquiry if 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. Documents submitted by the bidder may be verified by BHEL for rendering the applicable benefits.

- 30.0 The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

#### 31.0 PREFERENCE TO MAKE IN INDIA:

For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/Non-Local Supplier and purchase preferences to Class I local supplier, is as defined I Public Procurement (Preference to Make in India), Order 2017 dated 19-07-2024 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

**31.1 Compliance to Restrictions under Rule 144 (xi) of GFR 2017**

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for the purpose of this Clause shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).*
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.*
- III. "Bidder from a country which shares a land border with India" for the purpose of this Clause means: -*
  - a. An entity incorporated established or registered in such a country; or*
  - b. A subsidiary of an entity incorporated established or registered in such a country; or*
  - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or*
  - d. An entity whose beneficial owner is situated in such a country; or*
  - e. An Indian (or other) agent of such an entity; or*
  - f. A natural person who is a citizen of such a country; or*
  - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above*
- IV. The beneficial owner for the purpose of (III) above will be as under:*
  - 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.*

*Explanation*

- a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.*
- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.*

2. *In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.*
3. *In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person has ownership of or entitlement to more than fifteen percent of the property or capital or profits of the such association or body of individuals.*
4. *Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;*
5. *In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.*

V. *An Agent is a person employed to do any act for another, or to represent another in dealings with third person.*

VI. *The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.*

**Note:**

- (i) *The bidder shall provide undertaking for their compliance to this Clause, in the Format provided in Annexure-11.*
- (ii) *Registration of the bidder with Competent Authority should be valid at the time of submission as well as acceptance of the bids.*

32.0 Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection.

All overwriting/cutting, etc., will be numbered by bid opening officials and announced during bid opening.

33.0 In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.

In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/ draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).

Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

34.0 The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications,

certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

**35.0 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:

- a. Amendments/Clarifications/Corrigenda/Errata etc. issued in respect of the tender documents by BHEL
- b. Notice Inviting Tender (NIT)
- c. Price Bid
- d. Technical Conditions of Contract (TCC)—Volume-1A
- e. Special Conditions of Contract (SCC) —Volume-1B
- f. General Conditions of Contract (GCC) —Volume-1C
- g. Forms and Procedures —Volume-1D

It may please be noted that guidelines/ circulars/ amendments/ govt. directives issued from time to time shall also be applicable.

For BHARAT HEAVY ELECTRICALS LTD

(Addl. General Manager - Purchase)

**Enclosure:**

01. Annexure-1: Pre Qualifying Requirements.
02. Annexure-2: Check List.
- ~~03. Annexure-3: Certificate by Chartered Accountant~~
04. Annexure-4: Reverse Auction Process Compliance Form
05. Annexure-5: Authorization of representative who will participate in the online Reverse Auction Process
06. Annexure-6: RA Price Confirmation and Breakup
- ~~07. Annexure-7: Integrity Pact~~
08. Annexure-8: Undertaking as per PQR C4 of Annexure-1 i.e. PQR
09. Annexure-9: Declaration reg. Related Firms & their areas of Activities
010. Annexure-10: DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH JUNE, 2020 AND SUBSEQUENT ORDER(S)
011. Annexure 11: DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017
012. Annexure 12: Important information.
013. Annexure-13 : Bid Security Declaration Form

**PRE QUALIFYING CRITERIA**

E-Tender Spec No: BHE:PW:NGP:PUR:BTP COH:3200	
<b>JOB</b>	Annual Overhauling of 500MW, KWU design BHEL make Turbo Generator set including machining of Exciter rotor slip ring area and Exciter overhauling and TDBFP -Drive Turbines of Unit No.6 at Ukai TPS

S No	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Applicability	
<b>A</b>	Submission of Integrity Pact duly signed (if applicable)  (Note: To be submitted by Prime Bidder & Consortium / Technical Tie up partner jointly in case Consortium bidding is permitted, otherwise by the sole bidder)	Not Applicable	
<b>B</b>	<b>B)</b> Technical PQR <b>B.1</b> Atleast <b>One Job</b> of 'Erection and Commissioning' / 'General Overhauling' of Turbine & Generator of rating $\geq 250$ MW capacity (STG) last 07 (Seven) years, ending on latest due date of submission of offer. <b>AND</b> <b>B.2</b> One overhauling involving atleast <b>Two modules</b> (HP/IP/LP) with Generator of rating <b><math>\geq 250</math> MW</b> capacity (STG) Power plant against direct order from BHEL / PSUs / State Electricity Utilities/Private customer/Equipment owner in last 07 (Seven) years, ending on latest due date of submission of offer. Note: Relevant Supporting Documents of WORK ORDER COPY shall be submitted	Applicable	
<b>C-1</b>	<b>Financial TURNOVER</b>  Bidders must have achieved an average annual financial turnover (audited) of <b>₹28.50 Lakhs or more over last three Financial Years (FY) i.e 2022-23, 2023-2024' &amp; 2024-2025'</b> .	Applicable	
<b>C-2</b>	<b>NETWORTH</b> (only in case of Companies) Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive.	Applicable	
<b>C-3</b>	<b>PROFIT</b> Bidder must have earned profit in any one of the five Financial Years as applicable in the last five Financial Years, <b>(2020-21, 2021-22 , 2022-23, 2023-24 &amp; 2024-25 as on date)</b> . Bidders to submit audited balance sheets and profit & loss statements for the years as supporting documents.	Applicable	
<b>C-4</b>	Bidder must not be under Insolvency Resolution Process or Liquidation or Bankruptcy Code Proceedings (IBC) as on date, by NCLT or any adjudicating authority/authorities, which will render him ineligible for participation in this tender, and shall submit undertaking	Applicable	



	(Annexure-8) to this effect		
<b>D</b>	Assessment of Capacity of Bidder to execute the work as per sl. No 9 of NIT (if applicable)- <b>NOT APPLICABLE</b>	Not Applicable	
<b>E</b>	<b>Approval of Customer (if applicable)</b>	Not Applicable	
<b>F</b>	Price Bid Opening <b>Note:</b> Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E		BY BHEL
<b>G</b>	<del>Consortium tie-ups</del>	Not Applicable	

**Explanatory Notes for the PQR (unless otherwise specified in the PQR):**

**Explanatory Notes for PQR B.1 (Technical)**

1. The evaluation currency for this tender shall be INR.
2. For the criteria (B.1), actual executed value shall be considered.
3. Value of work is to be updated with indices for "All India Avg. Consumer Price index for industrial workers" and "Monthly Whole Sale Price Index for All Commodities" with base month as per last month of work execution and indexed up to three (3) months prior to the month of latest due date of bid submission as per following formula-

$$P = R + 0.425 \times R \times \frac{(X_N - X_0)}{X_0} + 0.425 \times R \times \frac{(Y_N - Y_0)}{Y_0}$$

Where

P = Updated value of work

R = Value of executed work

X<sub>N</sub> = All India Avg. Consumer Price index for industrial workers for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

X<sub>0</sub> = All India Avg. Consumer Price index for industrial workers for last month of work execution

Y<sub>N</sub> = Monthly Whole Sale Price Index for All Commodities for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

Y<sub>0</sub> = Monthly Whole Sale Price Index for All Commodities for last month of work execution

**Explanatory Notes for Technical Criteria (B2):**

1. VOID
2. Unless otherwise specified, for the purpose of "B2 Technical Criteria", the word 'EXECUTED' means achievement of milestones as defined below -
  - a. "ACHIEVEMENT OF PHYSICAL QUANTITIES" as per PQRs.
  - b. "READINESS FOR COAL FILLING" of at least one Bunker, in respect of Mill Bunker Structure.
  - c. "CHARGING" in respect of Power Transformers/ Bus Ducts/ "HT/LT Switchgears" / "HT/LT Cabling".
  - d. For C&I works: "SYNCHRONISATION" in case of power project (Excluding Nuclear Projects) / "WORK EXECUTION of the value as defined in PQR" in case of industry & Nuclear Projects.

- e. "BOILER LIGHT UP" in respect of Boiler / CFBC / ESP.
  - f. "CHARGING OF ATLEAST ONE PASS" in respect of ESP(R&M)
  - g. "GAS IN" in respect of HRSG.
  - h. "STEAM BLOWING" in respect of Power Cycle Piping.
  - i. "HYDRAULIC TEST"/ ANY OTHER EQUIVALENT TEST LIKE "100% RT/UT OF WELDED JOINTS" of the system in respect of Pressure parts/ LP Piping/CW Piping.
  - j. "FULL LOAD OPERATION OF THE UNIT" in respect of Insulation work.
  - k. "SYNCHRONISATION" in respect of STG / GTG.
  - l. "SPINNING" in respect of HTG.
  - m. "GAS IN" in respect of FGD
3. Boiler means HRSG or WHRB or any other types of Steam Generator.
4. Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass.
5. For the purpose of evaluation of the PQR, one MW shall be considered equivalent to 3.5 TPH where ever rating of HRSG/BOILER is mentioned in MW. Similarly, where ever rating of Gas Turbine is mentioned in terms of Frame size, ISO rating of the same in terms of MW shall be considered for evaluation.

**Explanatory Notes for PQR -C (Financial):**

**C-1:**

- i. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above.
- ii. Evaluation of Turnover criteria shall be calculated from the Audited Balance Sheet and Profit & Loss Account for the three Financial Years (FY).
- iii. In case audited Financial statements have not been submitted for all the three years as indicated against C-1 above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years.
- iv. If financial statements are not required to be audited statutorily, then instead of audited financial statements, financial statements are required to be certified by Chartered Accountant.

**C-2:** Net Worth (Only in case of companies) of the bidder should be positive.

**Note:** Net worth shall be calculated based on the latest Audited Accounts as furnished for 'C-1' above.

Net worth = Paid up share capital + Reserves

**C-3:** Bidder must have earned profit in any one of the FIVE financial years as applicable in the last three financial years as furnished for 'C-1' above.

**Note:** PROFIT shall be PBT earned during any one year of last FIVE financial years as in 'C-1' above.

**C-4:** Bidder must not be under Bankruptcy Code Proceedings (IBC) by NCLT or under Liquidation / BIFR, which will render him ineligible for participation in this tender, and shall submit undertaking to this effect.

**Common Explanatory Notes:**

- 1. For evaluation of PQR, in case Bidder alone does not meet the pre-qualifying technical criteria B1 above, bidder may utilize the experience of its Parent/ Subsidiary Company along with its own experience, subject to following:
  - a. The parent company shall have a controlling stake of  $\geq 50\%$  in the subsidiary company (as per Format-1).

- b. The Parent Company/ Subsidiary Company of which experience is being utilized for bidding shall submit Security Deposit(SD) equivalent to 1% of the total contract value
  - c. The parent/ subsidiary company and bidder shall provide an undertaking that they are jointly or severally responsible for successful performance of the contract (as per Format-2).
  - d. In case Bidder is submitting bid as a Consortium Partner, option of utilizing experience of parent/subsidiary Company can be availed by Prime Bidder only.
  - e. Parent Company/ Subsidiary Company of which experience is being used for bidding, cannot participate as a 'Standalone Bidder' or as a 'Consortium bidder'.
2. Completion date for achievement of the technical criteria specified in the 'B' above should be in the last 7 years ending on the 'latest date of Bid Submission' of Tender irrespective of date of the start of work. Completion date shall be reckoned from the " Financial Year quarter of bid submission". (for e.g. -Work completed on 01.01.2014 shall be considered even if latest date of bid submission is 20.03.2021).
3. "Executed" means the bidder should have achieved the technical criteria specified in the Common QR even if the Contract has not been completed or closed.
4. In case the Experience/PO/WO certificate enclosed by bidders do not have separate break up of prices for the E&C portion for Electrical and C&I works (i.e. the certificates enclosed are for composite order for supply and erection of Electrical and C&I and other works if any), then value of Erection & Commissioning for the Electrical and C&I portion shall be considered as 15% of the price for supply & erection of Electrical and C&I.
5. Following shall be complied with in case of consortium:
- a. The Prime Bidder and Consortium Partner(s) are required to enter in to a consortium agreement and certify to BHEL regarding existence and validity of their consortium agreement in line with validity period mentioned in NIT.
  - b. Prime Bidder and Consortium partners shall be approved by Customer for being considered for the tender (applicable if customer approval is required).
  - c. Number of partners including prime Bidder shall be NOT more than 3 (three).
  - d. Prime Bidder alone shall necessarily comply with "B1Technical Criteria" except for mechanical package where B1 criteria is not applicable.
  - e. Prime Bidder and Consortium Partner shall together comply with the 'Pre-Qualification Requirements' specified for the respective category of technical requirement as per "B2 technical criteria".
  - f. Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified.
  - g. All other conditions shall be read in conjunction with clause no 23.0 of NIT.
  - h. Prime Bidder shall be the Bidder who has a major share of work.
  - i. Prime Bidder shall be responsible for the overall execution of the Contract.
  - j. Performance shall be evaluated for Prime Bidder and the Consortium partner for their respective scope of work.
  - k. In case the Consortium partner backs out, another consortium partner meeting the QRs, has to be engaged by Prime Bidder and if not, the respective work will be withdrawn and executed on risk and cost basis of the prime bidder.
  - l. In case Prime Bidder withdraws or insolvency / liquidation / winding up proceedings have been initiated / admitted against the Prime Bidder, BHEL reserves the right to cancel, terminate or

short close the contract or take any other action to safeguard BHEL's interest in the Project / Contract. This action will be without prejudice to any other action that BHEL can take under Law and the Contract to safeguard interests of BHEL

- m. After successful execution of one work with a consortium partner under direct orders of BHEL, the Prime Bidder shall be eligible for becoming a 'standalone' bidder for works similar to that for which consortium partner was engaged, for subsequent tenders.
- n. The Consortium partner shall submit SD equivalent to 1% of the total contract value in addition to the SD to be submitted by the Prime Bidder for the total contract value.

BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

**Credentials submitted by the bidder against "PRE QUALIFYING CRITERIAS" shall be verified for its authenticity. In case, any credential (s) is/are found unauthentic, offer of the bidder is liable to the rejection. BHEL reserves the right to initiate any further action as per extant guidelines for Suspension of Business Dealings.**

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Format-1

**Not Applicable**

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Format-2

**Not Applicable**

**BHEL PSWR  
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**ANNEXURE - 2**

**CHECK LIST**

**NOTE: - Tenderers are required to fill in the following details and no column should be left blank**

1	Name and Address of the Tenderer		
2	Details about type of the Firm/Company		
3.a	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
3.b	Details of alternate Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4	EMD DETAILS	Bid security declaration to be submitted.	
5	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
		APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
6	Whether the format for compliance with <b>PRE QUALIFICATION CRITERIA</b> (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	<b>Applicable</b>	YES / NO
7	Audited profit and Loss Account for the last three years	<b>Applicable/Not Applicable</b>	YES/NO
8	Copy of PAN Card	<b>Applicable/Not Applicable</b>	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc. are read understood and signed	<b>Applicable/Not Applicable</b>	YES/NO
10	Integrity Pact	<b>Applicable/Not Applicable</b>	YES/NO
11	Declaration by Authorized Signatory	<b>Applicable/Not Applicable</b>	YES/NO
12	No Deviation Certificate	<b>Applicable/Not Applicable</b>	YES/NO
13	Declaration confirming knowledge about Site Conditions	<b>Applicable/Not Applicable</b>	YES/NO
14	Declaration for relation in BHEL	<b>Applicable/Not Applicable</b>	YES/NO
15	Non-Disclosure Certificate	<b>Applicable/Not Applicable</b>	YES/NO

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16	Bank Account Details for E-Payment	<del>Applicable/Not Applicable</del>	YES/NO
17	Capacity Evaluation of Bidder for current Tender	<del>Applicable/Not Applicable</del>	YES/NO
18	Tie Ups/Consortium Agreement are submitted as per format	<del>Applicable/Not Applicable</del>	YES/ NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement <del>Power of Attorney of Consortium Partner.</del>	<del>Applicable/Not Applicable</del>	YES/NO
20	Analysis of Unit rates	<del>Applicable/Not Applicable</del>	YES/NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED **ABOVE APPLICABLE DOCUMENTS** ARE LIABLE TO BE SUMMARILY REJECTED.

**DATE :**

**AUTHORISED SIGNATORY**

**(With Name, Designation and Company seal)**



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**ANNEXURE-3**

**Certificate by Chartered Accountant on letter head**

(applicable upto 31<sup>st</sup> March'2021 in line with MSME notification no. S.O. 2119 (E), dated 26<sup>th</sup> June'2020)

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)/ Udyam Registration Certificate No. ....  
dtd: ....., Category: ..... (Micro/Small/Medium)). (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 ..... Laacs
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 ..... Laacs
3. ~~For Enterprises~~ (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs ..... Laacs and turnover is Rs. .... Laacs (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)
4. ~~For Enterprises~~ (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs ..... Laacs and turnover is Rs. .... Laacs (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)

**(Strike off whichever is not applicable)**

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

Or

The enterprise has been graduated upward from its original category (micro/small/medium) (strike off which is not applicable), the enterprise shall maintain its prevailing status till expiry of one year from the close of year of registration, as notified vide S.O. No. 2119 (E) dated 26.06.2020 published in the gazette notification dated 26.06.2020 by Ministry of MSME.

Or

The enterprise has been reverse graduated from its original category (micro/small/medium) (strike off which is not applicable), the enterprise will continue in its present category till the closure of the financial year and it will be given the benefit of the changed status only with effect from 1<sup>st</sup> April of the financial year following the year in which such change took place, as notified vide S.O. No. 2119 (E) dated 26.06.2020 published in the gazette notification dated 26.06.2020 by Ministry of MSME.

Date:

(Signature)

Name:

Membership Number:

Seal of the Chartered Accountant

**ANNEXURE-4**

**Reverse Auction Process Compliance Form**

**(The bidders are required to print this on their company's letterhead and sign, stamp before RA)**

To

- M/s. {Service provider}
- Postal address}

**Sub: Agreement to the Process related Terms and Conditions**

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the RFQ document for {Items} against BHEL enquiry/ RFQ no. { } dt. {.....}

This letter is to confirm that:

- 1) The undersigned is authorized official/ representative of the company to participate in RA and to sign the related documents.
- 2) We have studied the Reverse Auction guidelines (as available on www.bhel.com), and the Business rules governing the Reverse Auction as mentioned in your letter and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.
- 4) We also confirm that, in case we become L1 bidder, we will FAX/ email the price confirmation & break up of our quoted price as per Annexure - 6 within **two** working days (of BHEL) after completion of RA event, besides sending the same by registered post/ courier both to M/s. BHEL and M/s. {Service provider.}

We, hereby confirm that we will honor the Bids placed by us during the auction process.

With regards

Signature with company seal

Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:

**Sign this document and FAX/ email it to M/s {Service provider} at {.....} prior to start of the Event.**

**ANNEXURE – 5**

**Authorization of representative who will participate in the on line Reverse Auction Process:**

1	NAME OF THE BIDDER	
2	NAME & DESIGNATION OF OFFICIAL	
3	POSTAL ADDRESS (COMPLETE)	
4	TELEPHONE NOS. (LAND LINE & MOBILE BOTH)	
5	E-MAIL ADDRESS	
6	NAME OF PLACE/ STATE/ COUNTRY, WHEREFROM S/HE WILL PARTICIPATE IN THE REVERSE AUCTION	

**ANNEXURE – 6**

Reverse Auction price confirmation and breakup  
(To be submitted by L1 bidder after completion of Reverse Auction)

To

- M/s. Service provider
- Postal address

CC: M/s BHEL POWER SECTOR WESTERN REGION, Nagpur

Sub: **Final price quoted during Reverse Auction and price breakup**

Dear Sir,

We confirm that we have quoted.

Rs. \_\_\_\_\_ (in value) &  
\_\_\_\_\_ (in words)

for item(s) covered under tender enquiry No. **BHE:PW:NGP:PUR:BTP COH:3200** dtd .....

Total price of the items covered under above cited enquiries is inclusive of {Packing & forwarding, GST, E.D., C.S.T., freight and insurance charges up to {.....} District, {.....} State and Type Test Charges etc., (exclusive of service tax), other as per NIT}

as our final landed prices as quoted during the Reverse Auction conducted today {date \_\_\_\_\_} which will be valid for a period of {in nos. & in words \_\_\_\_\_} days. as mentioned in the subject tender.

Yours sincerely,

For \_\_\_\_\_

**Name:**

**Company:**

**Date:**

**Seal:**

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**ANNEXURE – 7**

**INTEGRITY PACT**

**Not Applicable**

**ANNEXURE – 8**

**UNDERTAKING**

(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/Madam,

**Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS**

**Ref:** NIT/Tender Specification No: **BHE:PW:NGP:PUR:BTP COH:3200**

I/We,

---

declare that, I/We am/are not under insolvency resolution process or liquidation or Bankruptcy Code Proceedings (IBC) as on date, by NCLT or any adjudicating authority/authorities, which will render us ineligible for participation in this tender.

**Sign. of the AUTHORISED SIGNATORY**  
**(With Name, Designation and Company seal)**

Place:

Date:

**ANNEXURE-9**

**DECLARATION**

Date: \_\_\_\_\_

To \_\_\_\_\_

BHEL, \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Email: \_\_\_\_\_

Sub: **Details of related firms and their area of activities**

Dear Sir/ Madam,

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, \_\_\_\_\_ (NA, if not applicable).

1	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
2	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
.....		

***Note: I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.***

Regards,

( \_\_\_\_\_ )

From: M/s \_\_\_\_\_

Supplier Code: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

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**ANNEXURE-10**

**DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH  
REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04<sup>TH</sup> JUNE, 2020  
AND SUBSEQUENT ORDER(S)**

*(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)*

To,

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

Dear Sir,

**Sub:** Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 04<sup>th</sup> June, 2020 and subsequent order(s).

**Ref :** 1) NIT/Tender Specification No: **BHE:PW:NGP:PUR:BTP COH:3200**,  
2) All other pertinent issues till date

We hereby certify that the items/works/services offered by..... *(specify the name of the organization here)* has a local content of \_\_\_\_\_ % and this meets the local content requirement for 'Class-I local supplier' / 'Class II local supplier' \*\* as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 04.06.2020 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made are as follows:

- |          |          |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |

...

Thanking you,  
Yours faithfully,

**(Signature, Date & Seal of  
Authorized Signatory of the Bidder)**

**\*\* - Strike out whichever is not applicable.**

**Note:**

1. Bidders to note that above format Duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.
2. In case the bidder's quoted value is in excess of Rs. 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.



**ANNEXURE-11**

**DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017**

*(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)*

To,

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

Dear Sir,

**Sub:** Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017

**Ref :** 1) NIT/Tender Specification No: **BHE:PW:NGP:PUR:BTP COH:3200**,  
2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries. I certify that \_\_\_\_\_ *(specify the name of the organization here),*

(a) is not from such a country / ☐

(b) has been registered with the Competent Authority *(attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT))*; ☐

and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. *(attach relevant valid registration, if applicable)*

I hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

Thanking you,  
Yours faithfully,

**(Signature, Date & Seal of  
Authorized Signatory of the Bidder)**

**Note:** Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.

**Annexure-12: IMPORTANT INFORMATION**

**E -Tender** for this work is invited by BHEL PSWR NAGPUR and offer shall be submitted through BHEL e-procurement portal only. All correspondences regarding this tender shall be through E-procurement portal.

**Postal Address:**

GM /Purchase BHEL PSWR,  
SRIMOHINI COMPLEX, Floor No. 5 & 6, 345 KINGSWAY, NAGPUR 440001, INDIA

Following are the concerned BHEL officials to whom bidders can contact in case of any difficulty:

Manager Purchase, Email: [vvoidya@bhel.in](mailto:vvoidya@bhel.in) Ph: +91 – 712 – 2858 –715  
GM Purchase, Email: [vkarya@bhel.in](mailto:vkarya@bhel.in)

1. Refer Chapter XII of Volume IB Special Conditions of Contract regarding Suspension of Business Dealings: The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' has now been uploaded on [www.bhel.com](http://www.bhel.com) on "supplier registration page" at the following link: [http://www.bhel.com/vender\\_registration/pdf/Suspension\\_guidelines\\_abridged.pdf](http://www.bhel.com/vender_registration/pdf/Suspension_guidelines_abridged.pdf)

2. All Statutory Requirements as applicable for this project shall be complied with.

3. Following clause shall form part of the HSE documents issued under Chapter IX of Volume IB 'Special Conditions of Contract'

"In case of any financial deduction made by Customer for lapses of safety other than what is provided elsewhere in the contract, the same shall be charged on back-to-back basis on the defaulting contractor without prejudice to any other right spelt anywhere in the tender /contract"

4. **Acceptance of Bank Guarantee (BG)**

**Revision in Acceptance of Bank Guarantee (BG) Clause no. 1.10.3 (iv) of Vol I C GCC:**

**Clause No. 1.10.3 (iv) of Vol IC GCC is revised as below: -**

"Bank Guarantee issued by:

- a. Any of the BHEL consortium bank listed below:

State Bank of India  
ABN Amro Bank N.V.  
Bank of Baroda  
Canara Bank  
Citi Bank N.A.  
Corporation Bank  
Deutsche Bank  
HDFC Bank Ltd.  
The Hongkong and Shanghai Banking Corporation Ltd

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ICICI Bank Ltd.  
IDBI Ltd.  
Punjab National Bank  
Standard Chartered Bank  
State Bank of Travancore  
State Bank of Hyderabad  
Syndicate Bank

- b. Any public sector Bank (other than consortium banks) with a clause in the text of Bank Guarantee that **"It is enforceable at Nagpur, Maharashtra"**.
- c. Any private sector banks, with a clause in the text of Bank Guarantee that **"It is enforceable by being presented at any branch of the bank"**.

**Note: "Bank Guarantees issued by Co-operative Banks are not acceptable".**

**5. Broad Terms & Conditions of Reverse Auction:**

In continuation to Clause 19.0 of NIT (Notice Inviting Tender) following are the broad terms and conditions of Reverse Auction:

"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) (<https://www.bhel.com/guidelines-reverse-auction-2024>) for this tender. RA shall be conducted among the techno-commercially qualified bidders.

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."

**Note:-**

- 1. Reverse Auction will be conducted if two or more bidders are techno-commercially qualified .
- 2. Wherever RA is opted in a tender, the techno-commercially qualified H1 will not be allowed to participate in RA. In case more than one H1 bidder quote the same rate, the Price Offer received last, as per the time log of the Portal, shall be removed first, on the principle of last in, first out by the system.
- 3. However, H1 will be allowed to participate in RA in the following cases:
  - a) If number of techno-commercially qualified bidders are only 2 or 3.
  - b) In case Primary product of only one OEM is left in contention for participation in RA on elimination of H1.
  - c) For cases where there are more than 3 techno-commercially qualified bidders, if lowest bidder in sealed price bid is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE lowest bidder.

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- d) For cases where there are more than 3 techno-commercially qualified bidders, if lowest bidder in sealed price bid is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII lowest bidder.

**6. Conflict of Interest among Bidders/ Agents:**

"A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. ***The bidder found to have a conflict of interest shall be disqualified.*** A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

a) they have controlling partner (s) in common;

**or**

b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; **or**

c) they have the same legal representative/agent for purposes of this bid; **or**

d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder;

**or**

e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; **or**

f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:

1. The principal manufacturer directly or through one Indian agent on his behalf; **and**

2. Indian/foreign agent on behalf of only one principal;

**or**

g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; **or**

h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business."

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7. ~~Bidders kindly to take note that EMD (Earnest Money Deposit) shall be furnished by MSE bidders as well, as per the amount and procedure indicated in the NIT/GCC~~
8. Price Variation Compensation Clause no 2.17 of standard GCC shall not be applicable
9. Overrun compensation clause no. 2.12 of standard GCC shall not be applicable
10. LIQUIDATED DAMAGES/PENALTY: As per clause no. 2.7.9 of GCC with the amended of Liquidated Damage/Penalty at the rate of 0.5% of the contract value, per day of delay or part thereof subject to a maximum of 10% of the contract value.
11. Progress Monitoring, Monthly Review and Performance Evaluation of Vol-I BCD is not applicable. Separate Performance evaluation as per SAS format shall be considered for evaluation purpose.
12. Interest bearing recoverable advances- CI no. 2.13 of GCC, is not applicable.
13. Performance Guarantee of Workmanship for the work done / Defect liability period shall be as per 2.24 of GCC with the amendment in CI 2.24.1 as 90 Days commencing from the date of synchronization of Unit..

**14. Being an overhauling job & overlapping of various job in same area splitting of Work is not allowed.**

15. Following Amendment in CI 1.14 EXECUTION OF CONTRACT AGREEMENT of the GCC:

CI 1.14 EXECUTION OF CONTRACT AGREEMENT of the GCC	Amended as
<p>The successful tenderer"s responsibility under this contract commences from the date of issue of the Letter of Intent/ Award by Bharat Heavy Electricals Limited.</p> <p>The successful tenderer shall be required to execute an agreement in the prescribed form, with BHEL, within a reasonable time after the acceptance of the Letter of Intent/Award, and in any case before releasing the first running bill. The contract agreement shall be signed by a person duly authorized/empowered by the tenderer. The expenses for preparation of agreement document shall be borne by BHEL.</p>	<p>The successful tenderer's responsibility under this contract commences from the date of issue of the Letter of Intent by Bharat Heavy Electricals Limited.</p> <p><del>The successful tenderer shall be required to execute an agreement in the prescribed form, with BHEL, within a reasonable time after the acceptance of the Letter of Intent/Award, and in any case before releasing the first running bill. The contract agreement shall be signed by a person</del> <del>duly authorized/empowered by the tenderer. The expenses for preparation of agreement document shall be borne by BHEL.</del></p> <p><b><i>The contract agreement shall be deemed to have come into force from the date of</i></b></p>

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<i>acceptance of LOI by the subcontractor.</i>
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**16. Conflict of Interest among Bidders/ Agents:**

"A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. ***The bidder found to have a conflict of interest shall be disqualified.*** A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

a) they have controlling partner (s) in common;

**or**

b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; **or**

c) they have the same legal representative/agent for purposes of this bid; **or**

d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; **or**

e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; **or**

f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:

1. The principal manufacturer directly or through one Indian agent on his behalf; **and**

2. Indian/foreign agent on behalf of only one principal;

**or**

g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; **or**

h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business."

**17. Limitation of Liability in Clause 2.22 of General Conditions of contract for services/works has been amended as below:**

"Notwithstanding anything to the contrary in this Contract or LOA or Work Order or any other mutually agreed document between the parties, the maximum liability, for damages, of the

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contractor, its servants or agents, shall under no circumstances exceed an amount equal to the Price of the Contract or the Work Order. Neither party shall be liable to the other for any indirect or consequential loss or damage, including but not limited to loss of use, loss of profits, or loss of contracts, or special, punitive, exemplary losses whatsoever, arising out of or in connection with this contract.

This shall not be applicable on the recoveries made by Customer from BHEL on account of Contractor, any other type of recoveries for workmanship, material, T&P etc. due from the contractor."

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**Annexure-13 for Bid Security Declaration**

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

**To,**

GM/Purchase  
BHEL PSWR  
Floor No. 5 & 6, Shree Mohini Complex,  
345-Kingsway, Nagpur-440001

Dear Sir/Madam,

**Sub: Bid Security Declaration**

**E-Tender Spec No: BHE:PW:NGP:PUR:BTP COH:3200**

JOB Description :

1. I/We Mr/ Ms..... authorised person to sign the bid documents for tender pertaining to the captioned scope do hereby declare that I/We have gone through the entire tender documents including terms and condition mentioned in the tender documents and undertake to comply with them.
2. I/We further declare that we will not withdraw our bid or modify our offer during the period of validity of the bid after the deadline for submission of such documents.
3. If I/we withdraw or modify the bids during the period of validity, or if I/We are awarded the contract and fail to sign the contract, if applicable or to submit security deposit as defined in the tender document/LOA, we will be suspended for the period of time as specified in the tender document from being eligible to submit bids/proposals to BHEL.

**Signature of the Authorised Signatory  
(With Name, Designation and Company seal)**

Place:

Date:



3200

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



## TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I: PROJECT INFORMATION

1.0	Project Information
	<p>1) Purchaser : M/s. GSECL , Ukai TPS</p> <p>2) Project Title : Annual Overhauling of 500MW, KWU design BHEL make Turbo Generator set including machining of Exciter rotor slip ring area and Exciter overhauling and TDBFP -Drive Turbines of Unit No.6 at Ukai TPS</p> <p>3) Railway Station : Vyara</p> <p>4) Nearest airport : Surat</p>

The Bidder shall visit site and get acquainted himself with the conditions prevailing at site before submission of the bid. The information given here in under are for general guidance and shall not be contractually binding on BHEL/ Owner. All relevant site data/information as may be necessary shall have to be obtained /collected by the Bidder.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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The work under the scope of these specifications is broadly as follows.

### **PRE SHUTDOWN WORK**

1. Mobilization of site.
2. Arranging Gate pass, insurance & Accommodations to the contract personnel.
3. Shifting of material store and T&Ps.
4. Shifting of special T&Ps to turbine floor.
5. Removal of Enclosures Cover if required and erect back after OH if available.
6. Shifting of special T&Ps to turbine floor.
7. Removal of Enclosures Cover if required and erect back after OH if available.

### **SCOPE OF WORK:**

Scope of work comprises mainly TG set Bearing No. 1 to 7 Inspection including servicing & overhauling of MOP (Replacement of Bearings wherever required as per actual condition), Bearing Vibration related issues checking & resolving, LPT diaphragm servicing, MOT cleaning & basket strainer cleaning, oil flushing, Generator H2 coolers cleaning with Hydro test and ATT, TDBFP-B Rotor & BFP Cartridge replacement & related work, TDBFP-A & MDBFP bearing inspection related work, etc. as per below mentioned scope:

### **SCHEDULE -1: GENERAL OVERHAULING INCLUDING BEARING INSPECTION INCLUDING MOP, SPRING DECK SETTING.**

1. Removal of Acoustic Enclosure as per requirement.
2. Removal of Pedestal covers and Bearing Halves after recording relevant clearances. (Bearing No. 1 to 7).
3. Coupled run out checks of all rotors.
4. De-coupling of LP-Gen, Gen.-Exciter (if required) and HP-MOP.
5. Swing check of HP Rotor.
6. Swing Check of Gen-Exciter.
7. Decoupling of HP-IP, IP-LP and Alignment checks of HP-IP, IP-LP, LP-GEN coupling, Gen.-Exciter.
8. Roll check of HP, IP and LP during dismantling (LP outer casing in temporary support).
9. Bump check, centering check and Horn Drop Test of HP-IP casings during dismantling.
10. Spring deck locking and lifting of LP outer casing.
11. Inspection of all bearings 1 to 7 visual, UT & DPT. Repair /replacement, lapping and blue matching as per requirement for bearing & its support. 01 no. of TG bearing replacement is free of cost & if required to replace more than 01 than it will be on chargeable basis.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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12. Bottom saddle and torus piece checking and correction if any.
13. Oil catcher fins renewal.
14. Checking and replacement of jacking oil hoses, wherever required.
15. Servicing of LP Outer casing Atmospheric Relief Diaphragms.
16. MOT internal Cleaning. (MOT Draining & Refilling (after cleaning) shall be in scope of customer).
17. Inspection of TE & EE side Hydrogen seal assembly.
18. Dismantling and cleaning of H2 Coolers. Replacement of all gaskets and conducting Hydraulic Test of all the H2 coolers and attending leakages if any. Replacement of H2 cooler (if required)-Qty-01 No. will be carried out within the quoted price.
19. Assembly of H2 coolers in position.
20. Final Alignment of HP-IP, IP-LP, LP-GEN, GEN-Exciter and HP-MOP with hot well normal, CW pumps run and air & cooler charged in Generator and LP outer casing in temporary support and spring deck in released condition.
21. Spring Deck correction (if necessary) for final alignment & catenary setting. Hydraulic Jack and SS shims required for Spring deck correction is to be provided by customer. GERB engineer shall be arranged by BHEL. However, bidder shall arrange scaffolding and provide necessary manpower support to GERB engineer during deck spring setting.
22. Final roll checks of HP-IP-LP Turbine including adjustment of casing keys packers and their blue matching and lubrication of keys packers etc. as per requirement (limited to shim correction only).
23. Final checking of axial displacement and Bump test of HP, IP Rotors adjustment limited to correction in axial keys of HP-IP casing, lubrication etc. as per requirement.
24. Centering & Horn Drop checks of HP and IP casing.
25. Coupling of LP-IP, IP-HP & CRO
26. Swing check of Turbine rotors.
27. Gen-Exciter alignment, checking & correction.
28. Coupling of Gen-Exciter, CRO & Swing Check.
29. Bearing & Pedestal nos. 07 box-up.
30. Complete Exciter box-up & records clearance as per design.
31. LP-Gen coupling, Recording CRO, coupling guard fitting.
32. Reaming & Honing of Coupling holes if required. (Coupling Bolts & their machining has to be carried out by customer.)
33. Barring gear nozzle inspection and resetting of nozzles and assembly.
34. LP Outer Casing Box up.
35. Visual inspection of LP first & last stage (visible area) blades.
36. Cross around pipe manhole opening & inspection. Box up of the same after work completion.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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37. Conducting air tightness test of generator (complete system) as per O&M manual for 24 hrs. & identification of leakages (complete system). However, attending leakages, if any, will be limited to the area where work has been carried out by bidder.
38. Generator Primary Water System pipe line puncture attending work.
39. Box up of all bearings 01 to 06.
40. Rotor zero position after completion of assembly work. i.e for C&I work done by customer.
41. All pedestal 1-7 box-up. Before final box-up, BHEL shall have to ensure that all the pedestals are clear for further box up and there must not be any oil leakages from JOP lines, their fittings, etc.
42. Fitting of oil filters in lube oil inlet lines & Oil Flushing.
43. Cleaning of duplex filter, Main Oil Tank, basket strainer & JOP filter.
44. After oil flushing normalizing the bearing oil inlet lines by providing throttles. Putting M/C on barring gear.
45. Re-erection of Acoustic Enclosure.

### **MAIN OIL PUMP (MOP):**

46. Inspection and overhaul of Turbine Main Oil Pump.
47. Checking of various parts of MOP for clearances and correction.
48. Replacement of bearings and matching to set the clearances.
49. DP & UT of MOP Bearings, Wear Rings etc.
50. Alignment and coupling, etc.

### **Note: -**

1. **Skilled and experienced EOT crane Operators for two cranes shall be arranged by bidder for round the clock working.**
2. **Bidder has to depute Reputed Testing Agency along with Test kit & accessories to carry out DP, MPI & Ultrasonic test in consultation with BHEL Site-In-Charge.**
3. **Bidder shall provide assistance to BHEL experts to resolve the following issues during overhauling: -**
  - Generator Seal Oil DP variation issue & all the related applicable activities like Seal Rings Assembly Checking / Replacement, Seal Oil line flushing, rearrange position of DP Transmitter lines, DPRV adjustments, Generator ATT, Seal oil float valves checking and all the related works including dismantling, inspection & any correction in TG Brg. 5 & 6, LP-Gen De-couple, Alignment, Coupling, etc.
  - Problem of higher elevated temperature of LP Bypass downstream line. Hence, required to rectify and resolve the issue by overhauling /repairing / replacement of valves internals.

### **SCHEDULE-02: - ARRANGEMENT OF SAFETY ENGINEERS ALONG WITH COMPLIANCE OF ALL HSE REQUIREMENTS: -**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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1. Two (2) Nos Safety Engineers are to be deployed by the contractor for complete duration of Overhaul in consultation with BHEL Site-In-Charge. Safety Engineer should be qualified from approved institute. Certificate shall be produced at the time of deployment.
2. Bidder has to fulfil all HSE related requirement at site.

### **SCHEDULE-03: ARRANGEMENT OF HYDRAULIC TORQUE WRENCH:**

- 1) Bidder has to arrange Hydraulic Torque Wrench along with operator for decoupling & coupling of coupling bolts in consultation with BHEL site In-charge.

Note: All Dismantling and trial coupling, assembly to be done by Hydraulic torque wrench. EOT crane will not be used. Before mobilization ensure proper capacity of machine for torquing.

### **SCHEDULE-04: - GOVERNING CHARACTERISTIC CHECKING & SETTING (ASSISTANCE):**

1. Main Turbine Governing characteristic checking & setting.
2. Governing rack filters cleaning.
3. Test Valves cleaning, wherever required.
4. If any problem arises while finalizing Governing characteristic and required to check and service Hydraulic Servomotors of HP/IP Control / Stop valve then same will be carried out under Optional Item Sr. No. 17

**Note: - Bidder shall provide only necessary manpower assistance to BHEL for the job.**

### **SCHEDULE-05: -: INSPECTION, TUBES CLEANING & TESTING OF LUBE OIL COOLERS**

1. Dismantling of connected pipelines of coolers.
2. Dismantling of the cooler water box & tubes cleaning/inspection. Tubes to be cleaned with nylon brushes.
3. Hydro test of lube oil coolers.
4. Plugging of tube, if any tube leakage observed and ensure after re-hydro test.
5. Fitting of all connected pipe line/ drain lines/ vent lines by welding or flange joint.
6. Joints & O-Rings replacement work
7. Successful Charging of oil cooler from both oil & water side. Attending any leakages found during charging.

### **SCHEDULE-06: -TURBINE DRIVEN BOILER FEED PUMP NO. B – COMPLETE OVERHAULING OF DRIVE TURBINE AND BFP**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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1. Removal of Acoustic Enclosure as per requirement.
2. Dismantling of connected Pipelines and Couplings at both ends.
3. Alignment checking before dismantling of Bearings.
4. Checking of Centering of Rotor.
5. Removal of insulation.
6. Loosening of Parting plane fasteners and dismantling of top half of Turbine casing.
7. Checking of Seal Bore Readings.
8. Measurement of Float.
9. Inspection of Journal, thrust bearings and correction thereof. Replacement of Bearing, if m required.
10. DPT and UT of bearing, checking of bedding and checking of jacking oil hose/line.
11. Replacement of existing rotor with new rotor.
12. Checking of Front balance piston & Rear Glands and necessary correction/replacement, as required.
13. To carry out Joint inspection of flow path reading and do correction if required.
14. Placement of top half turbine casing and parting plane bolt tightening.
15. Alignment of Turbine with Gear Box & BFP & Gear Box & Booster Pump. Alignment correction is limited to shim correction only.
16. Checking of lifting of rotor.
17. Checking of Thrust Float.
18. Bearing clearances Measurement and Box up of bearings.
19. Pedestal Box Up.
20. MOT internal cleaning.
21. Connection of all connected pipelines
22. Oil Flushing and Normalization of pipelines.
23. Barring Gear of Drive Turbine.
24. Coupling of Turbine with Gear Box & BFP & Coupling of Gear Box & Booster Pump.
25. Fitment of coupling Guards and Covers.
26. Coupled Barring Gear.
27. Dismantling of Boiler feed pump.
28. Removal of existing BFP Cartridge with new cartridge.



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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29. Assembly of boiler feed pump.
30. Dismantling, servicing and Assembly of Booster Pump.
31. Application of Re-insulation on BP, BFP & BFPTD
32. Stop & Control Valve installation along with its servomotor, connected piping, etc.
33. Lube oil flushing & duplex filters, Jacking Oil filter, governing filters, LOP suction filters cleaning.
34. Cleaning of Basket & Conical strainers of BP & BFP
35. Governing characteristics checking and Setting work
36. Re-fitting of Acoustic Enclosure.

### **SCHEDULE-07: BEARING INSPECTION TURBINE DRIVE BOILER FEED PUMP - A: TURBINE & PUMP - 01 NOS.**

1. Removal & Re-fitting of Acoustic Enclosure wherever required.
2. Dismantling of connected Pipelines & Couplings at both ends.
3. Alignment checking before dismantling of Bearings.
4. Checking of Centering of Rotor.
5. Checking of Seal Bore Readings.
6. Measurement of Float.
7. Inspection of Journal & thrust bearings & correction thereof. Replacement of Bearing if required.
8. Opening of pedestals of booster Pump & BFP.
9. Recording relevant bearing readings of Booster Pump & BFP.
10. DPT & UT of bearing (TDBFP, BP & BFP), checking of bedding & checking of jacking oil hose/line.
11. Replacement of BP & BFP bearings (if required).
12. Alignment of Turbine with Gear Box & BFP & Gear Box & Booster Pump. Alignment correction is limited to shim correction only.
13. Checking of lifting of rotor & correction if required. Run out checking.
14. Checking of Thrust Float.
15. Bearing clearances Measurement & Box up of bearings.
16. Pedestal Box Up.
17. MOT Internal Cleaning.
18. Connection of all connected pipelines.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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19. Oil Flushing & Normalization of pipelines.
20. Barring Gear of Drive Turbine.
21. Coupling of Turbine with Gear Box & BFP & Coupling of Gear Box & Booster Pump.
22. Fitment of coupling Guards & Covers.
23. Coupled Barring Gear.
24. Lube oil flushing & duplex filters, Jacking Oil filter, governing filters, LOP suction filters cleaning.
25. Cleaning of Basket & Conical strainers of BP & BFP
26. Checking & setting of Governing Characteristics of TDBFP A.
27. Reapplication of Insulation to replace wherever insulation getting damaged / oily nature after AOH related work is completed.

### **SCHEDULE-08: BEARING INSPECTION MOTOR DRIVEN BOILER FEED PUMP: MOTOR & PUMP -01 NO.**

1. Dismantling of connected Pipelines & Couplings at both ends of motor.
2. Alignment checking before dismantling of Bearings.
3. Opening of pedestals of booster Pump & BFP.
4. Recording relevant bearing readings of Booster Pump & BFP.
5. Inspection of bearings & correction thereof. Replacement of Bearing if required.
6. DPT & UT of bearing (Motor, BP & BFP), checking of bedding.
7. Alignment of Motor with Hydraulic coupling, Hydraulic coupling & BFP & Motor & Booster Pump. Alignment correction is limited to shim correction only.
8. Bearing clearances Measurement & Box up of bearings.
9. Pedestal Box Up.
10. Connection of all connected pipelines
11. Oil Flushing & Normalization of pipelines.
12. Coupling of Motor with Hydraulic coupling, Hydraulic coupling & BFP & Motor & Booster Pump.
13. Fitment of coupling Guards & Covers.
14. Cleaning of Lub oil Filters.
15. Cleaning of Basket & Conical strainers of BP & BFP.
16. Reapplication of Insulation to replace wherever insulation getting damaged / oily nature after AOH related work is completed.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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### **SCHEDULE-09:: SUPPLY & APPLICATION OF CERAMIC INSULATION:**

1. Supply of ceramic Insulation material as per requirement.
2. After work completed, bidder shall have to remove damaged / oily ceramic insulation and re-application of such ceramic insulation over HP & IP Turbines, LPBP valves, etc. (Scope limited to patch work on damaged area) as required and instruction of EIC

### **SCHEDULE-10: REPLACEMENT OF CONICAL STRAINER**

3. Dismantling of Generator Primary Water System Conical Strainer LHS & RHS both.
4. Replacement of supplied conical strainers along with arrangement of required gaskets, O-Rings, Rubber Cord, etc. (in bidder Scope)
5. Box up after cleaning
6. Primary water system trial & ensuring no leakage.
7. Attend leakages if any observed and put the system in service.

### **SCHEDULE -11: - OVERHAULING OF EXCITER:**

1. Removal of Exciter Hood, Inner dome & dismantling of exciter walls.
2. Dismantling of Diode wheel cover.
3. Dismantling of pedestal – 4, 6 & 7 if required 5.
4. Dismantling of Bearing 4, 6 & 7 if required 5.
5. Decoupling of LP-Generator rotor.
6. Removal of pilot exciter.
7. CRO & Swing Check of Exciter Rotor.
8. De-coupling of Gen-Exciter & alignment check.
9. Removal of main exciter rotor & its stator after dismantling.
10. Dismantling of Exciter coolers water pipelines and removal of coolers from position.
11. Bearing 6 & 7 DP, UT & Revisioning.
12. Cleaning of diode wheel assembly and checking of diodes, fuses, heat sinks & associated parts for tightness and testing as per O&M manual. Replacement of diodes fuses and heat sinks if required.
13. IR test on Armature & Filed winding.
14. DC resistance on Armature & Filed.
15. Impedance test on Filed winding.
16. Pole drop test on Filed.
17. IR & Resistance test on Quadrature axis coils.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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18. Checking healthiness of pilot exciter rotor magnets.
19. Checking of rotor earth fault monitoring assembly.
20. Check and blue match the coupling flange of exciter rotor and generator rotor with surface plate if required.
21. Check the multi-contact band and replace the same if found defective.
22. Varnishing of Exciter stator, Exciter rotor & PMG with bectol red varnish if required.
23. Checking and attending cooling circuit of exciter.
24. Checking and attending of stroboscope window.
25. Checking of oil guard clearances & refining if required.
26. Alignment check of LP-Generator rotor & correction if required.
27. Alignment of Generator rotor and exciter rotor
28. Coupling of exciter rotor with generator rotor
29. Final Swing check of exciter rotor.
30. Boxup of Exciter Bearing 7 & its pedestal.
31. Coupling of LP-Generator rotors.
32. Boxup of Bearings 4 & 6 if required 5.
33. Boxup of Bearing pedestals 4, 5 & 6.
34. Assembly of Exciter coolers at position & connection of water pipelines.
35. Assembly of Main Exciter, PMG & Diode wheel cover.
36. Assembly of Exciter walls, Inner dome & Exciter hood.
37. Packing & preserving of old Exciter rotor in box & shifting to service bay

### **SCHEDULE - 12: - MACHINING OF EXCITER ROTOR SLIP RING AREA AT SITE:**

1. Arrangement of Exciter Rotor Supporting Machine with Rotating Facility for 15T Rotor including transportation of machine.
2. Foundation & Grouting of Supporting Machine at Site. (Cement & civil raw material shall be provided by GSECL).
3. Fabrication of Intermediate Coupling Flange at site. (Material sheet shall be provided by GSECL).
4. Placing of Exciter Rotor on supporting machine.
5. Coupling of Exciter Rotor with supporting machine rotating arrangement and rotate the exciter rotor.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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6. Design tool post and cutting tool for machining of Exciter rotor slip ring area.
7. Fix tool post with cutting tool with reference to Exciter rotor rotating machine.
8. Machining of slip ring area and after machining, grinding-polishing as per requirement.

Notes: Specialized Agency hired by bidder for Machining of Exciter rotor at site. All above arrangement/work (Sr. No. 1 to 8) will remain under scope of specialized agency hired for machining of exciter rotor.

### **OPTIONAL WORK: -**

### **SCHEDULE- 13: VIBRATION ANALYSIS AND TRIM BALANCING (ASSISTANCE ONLY):**

1. BHEL will depute expert & kit for vibration analysis. GSECL will arrange required output so that data can be captured for analysis & balancing purpose (if required).
2. High density balancing weights is to be provided by GSECL.
3. Erection/ Fixing of High Density Balancing weight at required location will be in the scope of bidder as guided by BHEL.

Note: -

1. **Manpower Assistance shall be provided to BHEL by bidder.**
2. **Above job shall not cover under chapter-6 (time schedule clause 6.1.2). Since it shall be carried out after start of barring gear and during rolling & synchronization machine which is totally driven by customer. Hence Payment shall be made on certification of BHEL site-incharge without any time extension.**
3. **Bidder has to arrange separate vehicle in consultation with BHEL site In-charge along with one escort for safe transportation of vibration analyzer machine from the place as informed by BHEL site in-charge and return back the machine to the place as instructed.**

### **SCHEDULE-14: ARRANGEMENT OF TG EXPERT: -**

1. Two (02) Nos Experts of TG & associated areas is to be deployed by the contractor as per site requirement in consultation with BHEL Site-In-Charge.

### **SCHEDULE-15: REPLACEMENT OF BEARING (IF REQUIRED)**

1. Dismantle the Lube Oil, jacking oil line from bearing, as per requirement.
2. Remove the old bearing
3. Carry out DPT, UT for new bearing.
4. Carry out all dimensional measurement of new and old bearing.
5. Replace the new bearing with bedding checking, blue matching and needful correction.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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6. Thoroughly cleaning of various JOP line holes by petrol cleaning, air jetting to ensure there is no chock up & debries. Connect it with Lube Oil & Jacking oil line. JOP Hose should be replaced.
7. Carry out matching with bearing saddle and rotor journal.
8. One bearing replacement is free of cost.

### **SCHEDULE-16: VALVE SEAT REPAIR/REPLACEMENT (IF REQUIRED)**

1. Cleaning of seating area.
2. Visual inspection to assess damage of internal parts.
3. Rectification of damage area by grinding, machining and welding.
4. Grinding and Lapping with special purpose in-situ machines.
5. Minor Machining of the plug and spindle if required would be carried out by GSECL under BHEL supervision in plant work shop if possible. If it is beyond repair at GSECL premises than bidder have to arrange the same at their own including transportation and within contractual rate only.
6. Blue matching to check the contact of the mating surfaces.

**Note:- Reputed/experienced agency for the above shall be arranged by bidder with consultation of BHEL Site Incharge**

### **SCHEDULE-17: SERVOMOTOR SERVICING (IF REQUIRED)**

1. Dismantling required oil pipelines.
2. Checking & identifying of the problem, dismantling and needful servicing & overhauling of servomotor valve.
3. Replacement of needful spares (spares will be provided by GSECL).
4. Box up of servomotor and identify for any leakages and attend if, any.
5. final trial with governing characteristics.

### **SCHEDULE: 18: ATTENDING CC BOLT LEAKAGE OF GEN. ROTOR (IF REQUIRED)**

1. Supply of required materials for attending CC Bolt leakage.
2. Deputation of expert Manpower for attending the leakage along with special tools.
3. CC Bolts leakage identification & attending.
4. Conducting Gas tightness test of rotor after CC bolt leakage attending work.

### **SCHEDULE 19: ATTENDING CC BOLT LEAKAGE OF EXCITER ROTOR (IF REQUIRED)**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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1. Supply of required materials for attending CC Bolt leakage.
2. Deputation of expert Manpower for attending the leakage along with special tools.
3. 03 CC Bolts leakage identification & attending.
4. 04 Conducting Gas tightness test of rotor after CC bolt leakage attending work.

### **SCHEDULE 20: GENERATOR ROTOR THREAD-OUT/IN (IF REQUIRED)**

In case Generator Rotor CC bolts leakage found, for attending CC bolts leakage and inspection of stator water system Teflon hoses, the following activities to be carried out.

1. Dismantling of TE & EE side Hydrogen seal assembly.
2. DP & UT of Hydrogen Seal ring (TE & EE side) & replacement if required. Spares to be provided by customer.
3. Assembly of Hydrogen Seal rings (TE & EE side)
4. Dismantling of both side end shields & cleaning.
5. Dismantling and removal of compressor assembly.
6. Generator Rotor Thread out.
7. Inspection of stator & rotor before inspection for any abnormalities.
8. Stator & rotor cleaning.
9. Each nipple joint inside stator to be checked for any seepage during Hydraulic test of stator winding.
10. Generator Rotor Thread in.
11. Fixing of both TE and EE bottom end shields with new cord. And pushing TITE seal. (After air tightness and depressurization again TITE seal to be pushed in to fill up voids). Will check the condition of Nipple and seating of ball inside the nipple.
12. Measurement of Air Gap, magnetic axis and carryout necessary adjustment.
13. Boxing up of compressor
14. Fixing both TE and EE top end shields
15. IR measurement of stator with 1KV MEGGER. Value as specified by OEM

### **ELECTRICAL TESTINGS ON GENERATOR STATOR & ROTOR**

1. ELCID of Generator stator
2. Ten delta test of stator
3. RSO of Generator rotor

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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4. Wedge tightness checking of stator

NOTE: Optional work from Schedule 12 to 14 will be carried out on Extra time basis in addition to the completion period of AOH.

**Note:-**

1. **Optional work from schedule 18-20 will be carried out on extra time basis (Mutually decided at site) in addition to the completion period of AOH.**
2. The scope of which is not mentioned in the scope of work if required to be carried out for completion of Annual overhauling related work, is in the scope of bidder.
3. Coupling of LP-IP, IP-HP, HP-MOP, LP-GEN, including reaming, honing of coupling holes, if required changing of coupling bolts if any. The said work will be in the scope of bidder no separate payment will be made for this work.
4. Swing check of Rotors and necessary minor rectification, if any say bolt tightening only will be in bidder Scope however if found major rectification then the same will be done at an extra cost and time.

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter –III: SPECIAL TERMS AND CONDITIONS

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### 3.1 **SPECIAL TERMS AND CONDITIONS:**

1. **Bidder to strictly follow all the necessary guidelines issued by Customer, District Magistrate, State Government and Central government to control Covid-19 outbreak.**
2. The bidder shall submit following documents to the BHEL Engineer in charge before starting of the work at site: -
  - a) Valid labour license of total Nos. of labours.
  - b) Valid labour Insurance policy to cover all the workers.
    - The Contractor shall necessarily take Workmen Compensation Policy and if required Third Party Liability Policy shall be taken by bidder.
  - c) **Medical Fitness Certificate of each worker issued by registered medical practitioner with Covid-19 test report.**
  - d) A photocopy of employment card issued to each worker as per format prescribed in factory rules.
  - e) List of safety appliance provided by the contractor to their workers with receipt.
  - f) Valid test certificate issued by competent authority as per factory rules for the T&P (like pulling / lifting devices, slings, machines etc.) to be utilized at site.
  - g) List of personnel's and workers deputed / deployed along with their full address proof, Police verification etc., shall be get done of his workers by the contractor.
  - h) Submission of Indemnity Bond.

Subcontractor should assure that the repair of the equipment covered in the scope of this offer will be conducted with the best of skills and know how available with Subcontractor and in conformance with the clearances and adjustments set forth in manufacture's drawing instruments and other information's furnished to Subcontractor.
3. Bidder shall visit site well in advance for identification & to ensure availability of required special T&P as well as other infrastructure required.
4. During execution of site it may be required to close the site temporarily, In this case De-Mobilization & Re mobilization charges shall not be payable.
5. All consumables required for the overhauling will be bidder's scope.
6. The various setting, clearances, adjustments and benchmarks will be restored to the extent possible during rectification to the condition as per the erection and commissioning log sheets available with customer. If however we are not able to produce erection / commissioning log sheets, efforts will be made to attend the best possible parameter or the conditions as observed at the time of dismantling of the equipment in consultation with us.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter –III: SPECIAL TERMS AND CONDITIONS

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7. Subcontractor must prepare PERT CHART/BAR CHART. Daily monitoring will be done jointly and log sheets of important activities should be noted down and signed jointly.
8. Daily work planning, scheduling & reviewing of work will be done by the party every morning & evening and daily programme must be submitted on daily basis to EIC. Party also to submit the progress exception report. Bidder should also submit filled protocol duly signed every day/after completion of work.
9. All the works shall be carried out as per the instructions and to the satisfaction of the Engineer In-charge.
10. The contractor will attend contributory to faulty and poor workmanship during commissioning and trial run of the equipment.
11. Round the clock working under expert supervision shall be ensured by the contractor deploying two equal parallel strength of groups in 12 hrs. Shift with equal T&P for all the jobs so as to complete the work in stipulated period or earlier.
12. Bidder has to engage his manpower for 24-hour work in all working days/holidays as per the instruction of Engineer-in-charge headed by responsible and experienced Engineers/Supervisors. The bidder has to submit detailed manpower deployment program for round the clock work before commencing overhauling works
13. It is the responsibility of contractor to keep the plant, equipment, machinery and surrounding area clean.
14. Removal of insulation from turbine, stop and control valve, associated pipe lines and through cleaning of subjected area is in the scope of bidder.
15. Bidder has to engage competent/skilled manpower as per the requirement of the respective jobs. BHEL reserve the right to disallow any worker to continue the work, if found unsuitable for the specific job.
16. The names of working persons like Site in-charge, supervisors, foreman, main fitters to be deployed during the job with full details has to be submitted stating their area of work and experience and specialization of the work to site in-charge before the start of work. BHEL may ask to change/delete the person not found suitable for the work at any point of time during execution of job. For any addition and deletion of the working person prior permission from BHEL shall be taken.
17. Subcontractor has to ensure that all the key persons must continue till completion of job i.e. machine comes on load. Subcontractor manpower (adequate) should remain at site for a period of **03 days after machine comes on full load.**
18. **Mobilization of full strength manpower and T&P shall be done immediately within 02 days after receipt of LOI or as per Intimation from BHEL.**
19. Work distribution sheet for all the workers/supervisors deployed shall be submitted to BHEL one day in advance on daily basis.

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20. Subcontractor should mobilize additional resources such as plant, equipment's, material as may be required by site in-charge to improve the progress of the work if the progress of the work is not satisfactory.
21. Subcontractor should get registered under relevant sales tax and or work contract Act (VAT) where the jobs are executed.
22. Party has to quote lump sum rate for all activities mentioned in the price bid as the actual quantities may vary during overhauling of the unit for which the contractor is not permitted to raise any dispute or claims. Items mentioned as optional will be taken up depending on condition, availability of spares and requirement.
23. Radiography and stress relieving of the joints are in the scope of the contractor.
24. **Removals & application of insulation are in the scope of the contractor.**
25. Scrap & insulation etc. is to be shifted to scrap disposal area as indicated by the Site-in-charge.
26. One administrative personnel to control the resources and attendance of the workers to be ensured.
27. Contractor shall arrange certified HP welder for welding job as required whose welding test will be conducted.
28. Free electricity shall be provided by customer but duties if any as applicable shall be paid by contractor.
29. Argon, Oxy- Acetylene gas shall be arranged by the contractor with cutting/welding set / argon welding set and other welding appliances.
30. Enerpack make close height Hydraulic jacks of 50T and 100T capacity - 4 nos. each shall be arranged by the contractor in 100 % working conditions.
31. If the duration of work continues beyond stipulated period due to any reason, no claim for compensation will be entertained.
32. The work details are brief & for Subcontractor knowledge only. Subcontractor will have to do all the related works as per requirement.
33. The contractor will be responsible to pay the damages to the property of Board or individual caused by his worker during the course of contract. If the contractor fails to pay the same it will be recovered from his bill.
34. No compensation claimed for idle labor for any reason will be entertained by BHEL.
35. All general tools and plants for execution of the work will have to be arranged/ maintained by the contractor at his own cost & risk.
36. In normal course, the interpretation of the under signed on any matter or decision given by him on any disputable points will be final and binding on the contractor.
37. Successful bidder is to obtain labor license before the start of the work.
38. Successful bidder is to obtain necessary "No Dues" certificate before de-mobilization from site.
39. Successful bidder has to arrange Site mobile recharge till the site closing.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

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40. LAP-TOP with latest configuration, DVD/CD writer/pen drive, its peripherals including printer-scanner and one USB Modem for Internet connectivity to be provided for BHEL site office.
41. Barring Gear is the essence of the contract.
42. Sufficiently adequate man power T&P and other resources should be mobilized by the contractor to operate round the clock work progress with standby technicians to be deployed immediately if need arises. Offer should be submitted considering these requirements.
43. Accommodation for the sub-contractor's manpower will be provided if made available by the customer as per the applicable charges or bidder shall arrange accommodation for their manpowers.
44. Contractor shall arrange vehicle for his manpower transportation.
45. Magnetic base drilling machine along with drill/reamer is required (Wherever Applicable) for dowelling of cylindrical support of bearing in case of their replacement.
46. Taper reamer along with drill is to be arranged for dowelling of MOP (Wherever Applicable).
47. The bidder shall erect approach platform as per requirement and dismantle the same.
48. The bidder shall be fully responsible for maintenance of records of his employees.
49. The bidder shall start the work only after instruction by contract operating authority.
50. **Scaffolding pipes, clamp, aluminium planks, Jallies &, 40 mm thick wooden planks are to be arranged by Sub-contractor for various platforms as required for the and Safety will be taken on priority basis.**
51. **Bidder has to arrange certified person to approve scaffolding erected before use.**
52. Contractor reconciles the material and submits along with the bill. To credit the balance spares worn out articles/spares and scrap in the main store.
53. Contractor shall clean the surrounding working area within three days immediately after completion of work/ Machine taken onto barring.
54. Give proper assistance to maintain the readings at site for the protocol.
55. Condenser tube bundles shall be covered properly with wooden planks/scaffolding boards, tarpaulins etc at the top of tube bundle to prevent falling of foreign material on condenser tubes from top of condenser/LP turbine.
56. Cast iron plates shall be first matched with calibrated surface plate by manual scrapping & matching and then above cast-iron plates shall be used for scrapping coupling faces to correct convexity/ concavity/taperness of coupling faces.
57. Adequate numbers of tarpaulin are to be arranged by the sub-contractor for covering of various equipment during insulation removal / application.
58. For carrying out MPI, NFT, UT, DPT etc. bidder should engage competent certified personnel/vendors along with calibrated instruments/equipment's etc.

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### Chapter –III: SPECIAL TERMS AND CONDITIONS

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59. Ultrasound test kit, MPI, DP Test kit of standard makes like ITW SIGNODE / CHECK MATE / ORION 400 ml Aerosol cans and suitable colour paint to repaint the weld joint after DP test along with required accessories and consumables
60. Transportation of material required during overhauling from central work shop to site is in the scope of bidder. Tractor & trailer, hydra, crane shall be arranged by bidder for shifting of materials.
61. ~~Once Turbine Rotors are removed from their casings, high spots on their coupling faces shall be removed & they will be placed on the turbine bearings. The rotors will be coupled with complete loose/fitted coupling bolts & stretched to full value for measurement of coupled run-out & swing value. Necessary correction by scraping etc. shall then be done, if required, in order to achieve acceptable run-out/swing values. This process of correction may require more than one attempt. Similar process shall be applied to Gen-Exciter coupling for achieving exciter end swing value.~~
62. The bidder/sub bidder shall have to take utmost care of spares parts/materials during dismantling, assembly, storage and handling of equipment's etc as applicable.
63. The contractor shall be fully responsible for erection of rigid and stable (enough) scaffolding for the safety of persons carrying out work. (Scaffolding material shall be arranged by bidder
64. The bidder shall be fully responsible for the safety of his personnel during the work at site, and shall ensure the use of safety appliances by his workmen.
65. Calibrated surface plate of size 1 Mtr. x 1 Mtr. and flatness within 06 microns. This is required to correct convexity/concavity and taperness of coupling faces.
66. Preheating/post heating, stress relieving and RT will be arranged by bidder.
67. Bidder has to give necessary assistance for drawn of spares from stores & returning the damaged spares to store.
68. Any fixture required for the above job shall be fabricated by the bidder.
69. IBR qualified welder for use in welding of high-pressure pipes etc., as applicable.
70. Machines, T&P's required for reaming & honing of coupling holes shall be arranged by bidder.
71. To & fro transportation of their entire team on their own from place of stay to airport/station, from place of stay to site and to meet other essential requirements.
72. All testing equipment required as per above scope of work shall be in the scope of bidder.
73. The bidder shall provide all necessary assistance while commissioning back the Turbine, Generator & aux systems mentioned above and shall rectify, if any, problems encountered during commissioning.
74. The bidder shall provide all necessary assistance during commissioning of T/G Set
75. **Hydraulic torque wrench with operator shall be arranged by bidder for decoupling & trial coupling, final coupling .**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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76. All Casing and Valves fasteners should be loosened / tightened by Induction Heating Method. Suitable capacity Induction Heating Machine shall be in the scope of bidder. In addition to this gas heating arrangement should be kept ready for emergency.
- ~~77. Blast cleaning shed erection and dismantling and cleaning of scrap alumina and alumina dust around the blast shed.~~
- ~~78. Alumina blasting work of turbine rotor, blades, guide blade carriers, valve cone, valve stem etc. should be carried out at two places round the clock. Bidder shall observe safety precaution while carrying out alumina blasting.~~
- ~~79. Required white fused Alumina powder shall be arranged by bidder.~~
80. Removal of thermal insulation wherever required for working.
81. Sufficient Halogen Lamps shall be in the scope of bidder.
82. Skilled EOT Crane operators, for round the clock working for Two cranes are in bidder's scope.
83. Reaming & honing of coupling holes if required shall be carried out by the bidder.
84. Bidder has to fulfil all HSE related requirement at site.
85. NDT Equipment, accessories and consumables in bidder scope. Equipment calibration & Safety gadgets in bidder scope

### NOTE:

1. The specific (minor) work which is not mentioned in the scope of work but required to be carried out for completion of subject work is in the bidder's scope.
2. Decision of BHEL site in charge regarding interpretation of the scope of work shall be final.

### LIAISON WITH ALL STATUTORY AUTHORITIES:

- Compliance of statutory provisions, whether mentioned in this contract or not shall be binding on the contractor.
  - a) If there is any change in labour laws after the contract has been awarded, then the new law shall automatically be binding on the contractor.
  - b) No additional financial compensation shall be paid by BHEL to the contractor on account of increased expenditure caused by a) and b) above.
  - c) Liaisoning with local commercial tax dept. to obtain Coml. Tax exemption certificate.

### PAYMENT TO WORKERS:

- Payment to workers shall be done in the presence of BHEL representative or through bank account only.
  - a) The contractor shall intimate the day of payment at least three days in advance in writing along with copy of the pay sheet and attendance cards.
  - b) All workmen shall be covered by PF Rules irrespective of their period of employment.
  - c) Payment shall be made inside the plant premises and during office hours.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter –III: SPECIAL TERMS AND CONDITIONS

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### **SUBMISSION OF DOCUMENTS:**

- The contractor shall submit following documents at appropriate time either before or during the execution of the work and as directed by Site in-Charge.
1. Test certificates of Pulling and Lifting machines and appliances.
  2. Details of workers to be deployed with name, address, category.
  3. Details of supervisory staff to be deployed.
  4. Authorization for receipt of materials and for signing of Measurement Books etc,
  5. Labour license specific to the contract.
  6. List of T&P brought into plant premises along with their serial numbers and dates/years of purchase.
  7. All the Staff/Workers deputed for the Job should have Insurance Cover and document in this regard should be submitted along with 1<sup>st</sup> RA Bill.
  8. List of consumables brought into plant premises along with their serial numbers and dates/years of purchase, along with test certificates wherever applicable.
  9. Insurance policy for the workers to be deployed in this contract.
  10. Safety undertaking.
  11. Copy of ESI certificate to be furnished.
  12. Proof of Payment of GST.

(Sl.No.11 to 12 are required before final bill is processed).

The contractor shall submit following documents in report form within 15 days from commissioning of unit after the overhaul/shut down work is completed:

- Details of work executed.
- Measurements against different schedules in compiled form.
- Material issue details.
- Material consumption details.
- Material returns details.
- Details of retrenchment benefits given to workmen.
- Details of issue of PF slip to workmen.
- Details of settlement of accident benefits if any to workmen
- Copies of pay sheets to workmen.
- Details and proof of remittance of PF to workmen (before final bill).
- No dues clearance from different stores of customer
- Valid labour license

### **Statutory Inspection**

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter –III: SPECIAL TERMS AND CONDITIONS

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- Please refer General and Special Conditions of Contract. In addition to it the scope includes getting the approvals from the statutory authorities (like IBR, smoke nuisance inspector, anti-pollution authorities, labour officials). This includes arranging for inspection visits of such authorities periodically as per requirement, submitting documents etc. and payment of fees connected with it.

### 3.6 Safety:

Contractor should engage at 01 no. Qualified Engineer in each shift during the contract period. Strict Safety measures have to be followed at Site. Contractor shall also adhere to all the safety provisions of our customer. In case violation of any provision at site fine of Rs.500/- to Rs.2000/- at the discretion of our site in-charge shall be imposed for each of such occasion and shall be recoverable from the contractor's bill.

1. The contractor should ensure the use of 24 volt hand lamps and 24 volt transformer by his workers. The all electrical gadgets shall have plug top & proper earthing.
2. All T&P like pulling and lifting machine, chain pulley blocks, slings, D-shackles should be maintained in proper working condition. Necessary test certificate has to be submitted by contractor for lifting tools & tackles. Third party testing certificates is also must in C.G.
3. The contractor shall be fully responsible for the safety of his workers.
4. The Use of ISI mark safety helmet, ISI mark safety shoes, Goggles, hand gloves, ear plugs and nose mask is a must. In addition to this, a full body (safety) harness, face shield must be provided to workers carrying out work at height & cutting/ welding/ grinding respectively. Gas cutting set with flash back arrester etc. should be provided by the contractor and should ensure the use of these safety equipment's, all PPE by his worker while working.
5. Scaffolding should be erected properly and strong enough with hand rails and it should not be used before getting it checked by Engineer-in-charge. it can be used after green tag from safety department.
7. The contractor shall be solely responsible for the safety of his workers & employees. The contractor must ensure that the persons working in site/nature jobs/ skilled jobs/ working with the welding machines, grinders, cutting set & other special T&P shall be having experience & expertise to perform that job. Contractor should engage physically and mentally fit manpower. The electrical connection / repair jobs shall be done only by the electricians.
8. The contractor shall ensure that prior to start of work all his workers shall get the safety training.
9. The contractor shall also take care for the safety of the equipments & persons working in the vicinity.
10. Customer at its own discretion may decide to recheck / retest some or all of the T&P / machines of the contractor inside the plant premises.
11. The helmets, safety shoes and safety belts issued by the contractor shall be conforming to relevant IS standards.
12. The contractor shall maintain the first aid box at site.

### PROVISION OF PPEs

- Personnel Protective Equipment (PPEs), in adequate numbers, will be made available at site & their regular use by all concerned will be ensured
- The following matrix recommends usage of minimum PPEs against the respective job.



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter –III: SPECIAL TERMS AND CONDITIONS

Sl.NO	Type of Work	PPEs
1	Concrete and asphalt mixing	Nose mask ,hand glove ,apron and gum boot
2	Welders/Grinders/Gas cutters	Welding/face screen, apron, hand gloves, nose mask and ear muffs if noise level exceeds 90dB. Helmet fitted with welding shield is preferred for welders
3	Stone /concrete breakers	Ear muffs, safety goggles, hand gloves
4	Electrical Work	Rubber hand glove, Electrical Resistance shoes
5	Insulation Work	Respiratory mask, Hand glove, safety goggles
6	Work at height	Double lanyard full body harness, fall arrestor (specific cases)
7	Grit/Sand blasting	Blast suit, blast helmet, respirator, leather gloves
8	Painting	Plastic glove, Respirators (particularly for spray painting)
9	Radiography	As per BARC guidelines

- The PPEs shall conform to the relevant standards as below and bear ISI mark.

### Relevant is-codes for personal protection

IS:2925-1984	Industrial safety Helmets
IS:4770-1968	Rubber gloves for electrical purpose.
IS:6994-1973(Part-I)	Industrial safety Gloves(Leather & Cotton Gloves)
IS:1989-1986	Leather Safety boots and shoes.
IS:5557-1969	Industrial and safety rubber knee boots.
IS:6519-1971	Code of practice for selections care and repair of Safety foot wear.
IS:11226-1985	Leather Safety footwear having direct molding sole.
IS:5983-1978	Eye protectors.
IS:9167-1979	Eye protectors.
IS:1179-1967	Eye & face protection during welding
IS:3521-1983	Industrial Safety Belt and Harness
IS:8519-1977	Guide for selection of industrial Safety equipment for body protection
IS:9473-2002,14166-1994, 14746-1999	Respiratory Protective Devices

The list is not exhaustive. The safety officer may demand additional PPEs based on specific requirement.

**NOTE: All employee of vendor should wear company uniform along with company logo at work place. Please follow strictly. Otherwise it may lead to penalty under safety provision.**

### **BIDDER SHALL ALSO FOLLOW GSECL SAFETY NORMS AT SITE**

**3.7 Important Safety Conditions:-**Bidder has to ensure utmost safety at all associated workplace/s. Penalty for non-compliance of safety rules each time.

- Non using safety shoes per person per occasion —Rs.1000
- Non using safety helmet per person per occasion —Rs.1000
- Non using safety belt per person per occasion —Rs.1000

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter –III: SPECIAL TERMS AND CONDITIONS

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### 3.8 OTHER TERMS AND CONDITIONS

- 1.0 Successful bidder has to extend manpower assistance for minor cleaning/scraping, etc.
- 2.0 ~~A copy of tender document with each page duly signed and stamped shall be submitted along with your offer as a token of your unconditional acceptance to this tender condition.~~ Also any deviation to the tender conditions shall be submitted in a separate paper duly signed by the bidder, any overwriting / correction by the bidder on the tender will not be recognized and the offer may be rejected on this ground.
- 3.0 General and special conditions of contract' enclosed herewith will be fully applicable, except otherwise stated in this enquiry. In case of any conflict, the conditions specified in this enquiry letter will prevail over that of the 'General and special conditions of contract'.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – IV: T&Ps and MMEs to be deployed by Contractor

### 4. LIST OF MANPOWER REQUIRED

Sl.No	Manpower	Category	No. of Persons
1.	Site-in charge	Highly Skilled	1
2.	Foreman	Highly Skilled	4
3.	Supervisor	Skilled	5
4.	Store Keeper	Skilled	2
5.	HP Welder	Highly Skilled	1
6.	Welder (Non IBR)	Skilled	2
7.	Gas cutter	Skilled	2
8.	Millwright Fitter	Highly Skilled	4
9.	EOT Crane Operator	Highly Skilled	4
10	Sarang	Skilled	4
11	Fitter	Skilled	10
12	Electrician	Semi-Skilled	2
13	Jr.Filter	Semi-Skilled	12
14	Insn.Lagger / Carpenter	Semi-Skilled	1
15	Grinder Man	Skilled	2
16	Rigger	Semi-Skilled	4
17	Helper	Un-Skilled	20
18	Office Boy	Semi-Skilled	2
19	Safety Engr	Safety officer	2
20	Expert Manpower	Turbine, Generator, Governing Valves, & Associated Experts	2

This is an indicative list; the sub-contractor shall deploy adequate manpower to carry out the work round the clock and as per requirement of the site during execution of the Job.

**Note:** Site in-charge should be qualified Engineer, B.E. (Mechanical) and all the supervisors should have diploma in engineering.

Successful bidder has to arrange suitable mobile communication facility for BHEL site-in charge

#### 4.1 Man power & T&P:

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – IV: T&Ps and MMEs to be deployed by Contractor

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- Adequate manpower along with T&P should be deployed at site. All the T&P required for the work shall be arranged by the contractor and all T&P should reach the site immediately as machine is under shutdown. All the measuring instruments shall be duly tested / calibrated and valid certificate to that effect should be submitted to our Site In-charge before start of the work.
- 1. A deployment plan along with experience and name of the Site In-charge, Engineers, Supervisors, Foreman and main technicians to be submitted on per shift basis.
- 2. LAP-TOP with latest configuration, DVD/CD writer, its peripherals including printer-scanner and one USB Modem for Internet connectivity to be provided for BHEL site office.
- 3. One office boy in each shift is to be provided for BHEL site office.
- 4. Well experienced experts (at Least 25 years' job experience) shall be arranged by bidders.

### **4.2 LIST OF TOOLS AND PLANTS TO BE ARRANGED BY CONTRACTOR**

01. Taper gauge, slip gauge set, depth gauge and depth micrometer.
02. Feeler gauge sets, feeler strips of 0.03 to 0.10 mm size.
03. One set of 2-meter-long feeler gauge strips (0.05 to 1.0 mm).
04. Dial indicators New with magnetic bases (12 dials of diameter 40 mm travel – 5 mm).
05. Micrometers (inside and outside up to 300 mm, 450mm, 600mm & 1000mm).
06. Telescopic gauge (2 sets). Bevel protractor and combination sets.
07. Try square.
08. Straight edge for coupling and bearing checking.
09. Set of parallel blocks/ V blocks.
10. Vernier calipers, (150 and 300 mm), measuring steel tapes and 5 meters steel rulers.
11. Precision spirit level (with micro head).
12. 2 sets of D.E. and Ring spanners (6-36mm).
13. 2 sets of box spanners (6 to 20mm and 22-50mm).
14. Allen keys of various sizes (from 2mm. onwards).
15. D.P.Test Kit (with consumables).
16. Crowbars tin cutters, pliers (cutting plier, nose plier grip plier circlip-outside and inside).
17. Screw drivers and sledge hammers – 10 lbs – 1 lbs.
18. Adjustable wrenches, pipe wrenches and heck saws.
19. Single ended spanners (36 mm and above).
20. Flat, half round, triangular bearing scrappers-8", to 12".
21. Files flat round, half round and square, rough and smooth (sizes 6", 9" and 12").
22. Bench Grinders, straight grinders GQ4 and GQ6, Angle grinders.
23. Reamers upto 30 mm. Taper reamers.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter – IV: T&Ps and MMEs to be deployed by Contractor

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24. Drilling machine with magnetic stand upto –30 mm with drill bits.
25. Flexible grinders with grinding stones and cutters of different Shapes and sizes, Angles Grinders and Sander machine.
26. Number punch, letter punch, centre punch and hole punches etc.....
27. Steel wire brushes, wire brush wheels, nylon wire brushes and Painting bushes.
28. Reamers and honing tools with proper jigs and fixtures for carrying out coupling hole Reaming /honing.
29. Lifting devices eye bolts, D-shackles, slings of various sizes Guide rods etc.....
30. Chain pulley blocks upto 10 tons-4,5 tons-4, 2 tons-4 pull/lift.
31. Copper/Brass rods dia. ½” to 1 ½”X450 mm.
32. Tap and die sets 6 to 36 mm.
33. Surface plate 450 X 450 mm.
34. Torch light/hand lamps with cables, 230/24 V transformer.
35. Torque wrench and torque multiplier.
36. Wooden mallet, Nylon Mallet.
37. Hand glover-asbestos, Manila rope, asbestos cloth leather and Rubber gloves.
38. Set of needle files.
39. Air blower – electric.
40. Electric drills – ¼”, ½”, and 5/8”.
41. Ball pen hammer of various sizes.
42. Gas cutting and heating set with torches regulators, hoses and cylinder minimum two sets).
43. Arc welding generator/rectifiers with regulator, cables, Electrode holders and shields, TIG welding holders.
44. Pneumatic – grinders.
45. Hose pipes for compressed air.
46. Bench vices.
47. Hydraulic jacks 5, 10, 25, 50 & 150 tons capacity and screw jacks- 5 to 10 tons.
48. Hydraulic pump for testing coolers and 500 V megger.
49. Electric switchboards with RCCB and flood light arrangements with fuse boxes and isolating switches, Plugs and sockets.
50. In addition to above T and P contractor will be required to fabricate fixtures such as pullers etc. for removal of any other equipments related to the scope of work.
51. Pedestal fans/air coolers.-04 nos if required
52. Wooden sleepers.
53. Wooden Planks.
54. Magnifying glass.
55. Plastic helmets, Fiber helmet.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – IV: T&Ps and MMEs to be deployed by Contractor

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56. Gas cutting/welding goggles, grinding goggles.
57. Bearing pullers.
58. Tarpaulin.
59. Insulation testers and Meggers 500 V and 1000 V at least 1 No. each.
60. Any other T and P as per requirement and as per our General and special conditions of Contracts.
61. Digital Multimeter
62. Analogue multimeter of Motwane make
63. Scaffolding materials
64. heating torch-4 nos, , Pneumatic / cutter.

### NOTE:

1. The above list is only indicative for work in one unit; and not exhaustive. Arrangement for any other T and P required for completion of the job shall be the responsibility of the contractor and shall be arranged by him.
2. All the tools and tackles/measuring instruments shall be duly tested/calibrated and valid certificate to that effect should be submitted to our site in-charge before the start of work.

### **4.3 CONSUMABLES TO BE ARRANGED BY CONTRACTOR**

(The list is indicative only and not exhaustive)

01. Kerosene oil.
02. Rustolene.
03. Petrol/white Petrol/Benzene/CRC/CTC/WD-40-% litre.
04. Grease/Graphite Grease.
05. Hacksaw Blades.
06. Waste cloth/Cotton.
07. Marking/lint free cloth/Muslin.
08. Asbestos cloth/Asbestos cord.
09. Prussian blue.
10. Graphite (flaked) powder/Molykote/Mosil.
11. Cardiom compound.
12. Holdtite/shellac/Gasket sealing compound.
13. Lead wire 1.0 m/1.5 mm/0.5 mm.
14. Liquid soap.
15. Carborandum grinding paste coarse/fine/Diamond lapping paste.
16. Emery papers/Rolls.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter – IV: T&Ps and MMEs to be deployed by Contractor

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17. Cutoff wheels.
18. Grinding wheels.
19. Oil stones, Mounted wheels, rotary cutters.
20. D. P. test chemicals.
21. Gas Cylinders for cutting/welding.
22. Chalk pieces, marking pens, thermoschalks upto 400c
23. Insulation tape, Johnson Tapes.
24. Sander discs and wheels.
25. Polyethylene sheets.
26. Araldite, M. Seal, Instabond, Dendrite.
27. CRC 2-26, white spirit.
28. Electric fuse wire, cables for the connections
29. 2.5 mm<sup>2</sup> Cu cable (flexible) of 200 mtr. length.
30. Ortho phosphoric acid
31. CRC Lectra-clean.
32. plastic sheet general purpose electrodes for welding purpose, industrial oxygen, acetylene, Nitrogen gas cylinder, epoxy gel red (make Dr. beck), Dilutenet, thinner, Hardener, EH 411/Metallon, E-2082, Becktol Red, Araldite, glass tape.
33. Infrared Temperature gun for breech nut opening.
- 34. Special Electrode – Nicro-82 & 9018 etc. shall be arranged by bidder if required**
35. Magnetic Fluorescent INK.
36. Cotton waste, Kerosene, Tarpaulins, General purpose electrodes, industrial oxygen, Acetylene, Nitrogen gas cylinders & Rustolene, etc.
37. Consumables like argon welding electrode/ filler rods for welding requirement.
38. Welder ordinary and IBR approved HP welder for carrying out various welding works.
39. 6General purpose fasteners & HT fasteners, general purpose gaskets, Madarpat, 732 RTV ADHESIVE/SEALANT, STAG-B, Hylomer tubes, Molykote- P37, Molykote-1000, Special
40. Welding Electrodes, etc.

**NOTE:**

The above list is only indicative for work in one unit & not exhaustive. Arrangement for any other consumables required for completion of the job shall be the responsibility of the contractor & shall be arranged by him.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – V: Quality Requirements

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### **QUALITY REQUIREMENT**

- Various inspection/ quality control / quality assurance procedure/ methods at various stages will be as per BHEL/ customer quality control procedure/ codes/ IBR and other statutory provisions and as per BHEL Engineer's instructions.
- Preparation of quality assurance log sheets and protocols with customer's engineers, welding logs, other quality control and quality assurance documentation as per BHEL Engineer's instructions, is within the scope of work/ specification.
- A daily log book should be maintained by Area In-charge of contractor on the job incorporating erection / alignment / welding clearance /radiography / progress of work etc. and the same shall be submitted to BHEL. Also, daily reports shall be submitted to BHEL.
- All the important measurements like pre-assembly checking of alignment leveling/ centering work etc. shall be recorded in the daily log book with sketches based on BHEL drawings indicating readings/ measurements actually taken and signed by BHEL/ Customer/ Contractor representatives.
- The inspection/measuring and testing equipments should be of brand, quality and accuracy, as specified by BHEL engineer and should have valid calibration certificates traceable to national/international standards.
- Total quality is the watchword of the work and contractor shall strive to achieve the quality standards, procedures laid down by BHEL. He will follow the instructions as per BHEL drawings and quality standards.
- The welder's performance will be reviewed from time to time as per the BHEL/ IBR standards and any welder not performing to the standards set by BHEL/ IBR standards will be removed from working, Contractor shall arrange for the alternate welders immediately.
- **STAGE INSPECTION BY BHEL / CUSTOMERS ENGINEERS**  
Apart from day-to-day inspection/ stage inspection of equipments by BHEL engineers, the equipments may be checked at various stages by customer's engineers and quality assurance teams. Contractor shall arrange all labour, tools/tackles etc. for such inspections free of cost.



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VI: Time Schedule

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### 6.1 TIME SCHEDULE & MOBILIZATION

#### 6.1.1 INITIAL MOBILIZATION:

After receipt of fax LOI, Contractor shall discuss with Project Manager / Construction Manager/BHEL Site In charge regarding mobilization. A Full-fledged team with T&P shall be mobilized **within 02 days on receipt of LOI or BHEL intimation.**

#### 6.1.2 MOBILIZATION FOR ERECTION, TESTING, ASSISTANCE FOR COMMISSIONING, OVERHAULING ETC.

The activities for Overhauling shall be started as per directions of Site In-charge of BHEL. Contractor shall mobilize further resources (in addition to those required for activities under clause no. 6.1.1) as per requirement to commence Annual Overhauling of 500MW, KWU design BHEL make Turbo Generator set including machining of Exciter rotor slip ring area and Exciter overhauling and TDBFP -Drive Turbines of Unit No.6 at Ukai TPS and progressively augment the resources to match schedule of the project.

**OVERHAULING TIME SCHEDULE IS THE ESSENCE OF THIS CONTRACT. SUBCONTRACTOR SHOULD COMPLETE ALL WORK WITHIN 25 DAYS (FROM BARRING GEAR STOP TO BARRING GEAR START) OF TIGHT SCHEDULE.**

**As informed by GSECL, Overhaul Schedule of U-6, Ukai TPS is scheduled w.e.f. 27.12.2025**

**Validity of Contract: - 12 Month from the date of LOA.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VII: TERMS OF PAYMENT

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### **Payment Terms :-**

1. 40% on completion of mobilization of site, completion of dismantling work. **Documents like Insurance & Labour License to be submitted along with first bill.**
2. 40% on completion of assembly work & machine put back on barring gear.
3. Final 20% after commissioning & synchronization of machine and also on payment of all dues and submission of all the documents like No Dues certificate from Customer/ HR clearance if required, EPF challan, Insurance, Labour License, Labour Payment sheets, proof of payment of GST, **Indemnity Bond to be submitted along with final bill** etc. (sub-contractor before leaving the site including return of T&P issued to him. All costs, claims, rentals or dues to the agency will be deducted from final bills as per BHEL norms)

#### **Note :**

1. **For final bill:** -If required documents are not submitted by bidder within 90 days from the date of commissioning, then Penalty of 1% per week of the total contract value will be levied & it is subject to maximum 5% of the contract value shall be deducted from contractor 's bill.
2. Penalty of 1% per day of the total contract value will be levied for improper mobilization of man power and 1% per day for T & P and consumables separately subject to maximum 5% of the contract value shall be deducted from contractor 's bill
3. While submitting the invoices, Bidder should mention their Bank Account No. on each of their invoices for the purpose of making e-payment.
4. The bill due for payment shall be submitted to the Engineer in-charge of BHEL **along with documentation of Refund of Retention Money Format No. F24 (Rev 00)** (revised format is attached in VOL I BCD 'forms and procedure') at site for necessary verification and processing through proper channel.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: TAXES AND DUTIES

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### TAXES, DUTIES, LEVIES (Rev 14 dated 09/10/2020)

- 1) All taxes excluding GST, GST Cess & BOCW Cess but including, Royalties, fees, license, deposits, commission, any State or Central Levy and other charges whatsoever, if any, shall be borne by you and shall not be payable extra.
- 2) Any increase of the taxes excluding GST, GST Cess & BOCW Cess, at any stage during execution including extension of the contract shall have to be borne by the contractor. Quoted/ accepted rates/ price shall be inclusive of all such requirements. Please note that since GST on output will be paid by BHEL separately as enumerated below, your quoted rates/ price should be after considering the Input Credit under GST law at your end.
- 3) **GST** :  
The successful bidder shall furnish proof of GST registration. GST along with Cess (as applicable) legally leviable & payable by the successful bidder as per GST Law, shall be paid by BHEL. Hence Bidder shall not include GST along with Cess (as applicable) in their quoted price.
- 4) GST charged in the Tax Invoice/Debit note by the contractor shall be released separately to the contractor only after contractor files the outward supply details in GSTR-1 on GSTN portal and input tax credit of such invoice is matched with corresponding details of outward supply of the contractor and has paid the GST at the time of filing the monthly return
- 5) E-invoicing under GST has been implemented with effect from 1<sup>st</sup> October 2020 for all the taxable persons having turnover more than the threshold limit in any preceding financial year from 2017-18 onwards. Therefore, for all the taxable persons falling under the purview of E-invoice, it is mandatory to mention a valid unique Invoice Reference No. (IRN) and QR code as generated from E-Invoicing portal of the Government for the purpose of issuing a valid Tax Invoice. Only an E-invoice issued in the manner prescribed under rule 48(4) of CGST Rules shall be treated as valid invoice for reimbursement of GST amount.  
If the successful Bidder is not falling under the purview of E-Invoicing then he has to submit a declaration in that respect along with relevant financial statements.
- 6) Bidder shall note that the GST Tax Invoice complying with GST Invoice Rules (Section 31 of GST Act & Rules referred there under) wherein the 'Bill To' details will as below:  
BHEL GSTN – As per **Annexure -1**  
NAME -- Bharat Heavy Electricals Limited  
ADDRESS -- Site address
- 7) Bidder to immediately intimate on the day of removal of Goods (in case of any supply of goods) to BHEL along with all relevant details and a scanned copy of Tax Invoice to below email ids to enable BHEL to meet its GST related compliances :-  
Email id ---- to be intimated later on.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter-VIII: TAXES AND DUTIES

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In case of delay in submission of the abovementioned documents on the date of dispatch, BHEL may incur penalty /interest for not adhering to Invoicing Rules under GST Law. The same will be liable to be recovered from the successful bidder, if such delay is not attributable to BHEL.

- 8) In case of raising any Supplementary Tax Invoice (Debit / Credit Note) Bidder shall issue the same containing all the details as referred to in Section 34 read with Rule 53.
- 9) Bidder shall note that in case GST credit is delayed/ denied to BHEL due to delayed / non receipt of goods and /or tax invoice or expiry of the timeline prescribed in GST Law for availing such ITC, or any other reasons not attributable to BHEL, GST amount shall be recoverable from the vendor along with interest levied / leviable on BHEL, as the case may be.
- 10) Bidder shall upload the Invoices raised on BHEL in GSTR-1 within the prescribed time as given in the GST Act. Bidder shall note that in case of delay in declaring such invoice in your return and GST credit availed by BHEL is denied or reversed subsequently as per GST Law , GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from the bidder along with interest levied / leviable on BHEL.
- 11) Way Bill: Successful Bidder to arrange for way bill / e-waybill for any transfer of goods for the execution of the contract.

The Bidder has to make their own arrangement at their cost for completing the formalities, if required, with Issuing Authorities, for bringing materials, plants & machinery at site for execution of the works under this contract, Road Permit/ Way Bill, if required, shall be arranged by the contractor and BHEL will not supply any Road Permit/ Way Bill for this purpose.

- 12) **New taxes and duties:** -Any New taxes & duties, if imposed subsequent to due date of offer submission as per NIT & TCN, by statutory authority during contract period including extension, if the same is not attributable to you, shall be reimbursed by BHEL on production of relevant supporting document to the satisfaction of BHEL. However, you shall obtain prior approval from BHEL before depositing new taxes and duties.

Benefits and/or abolition of all existing taxes must be passed on to BHEL against new Taxes, if any, proposed to be introduced at a later date.

In case any new tax/levy/duty etc. becomes applicable after the date of bidder's offer but before opening of the price bid, the bidder must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of the price bids. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

- 13) For transportation work, bidder shall declare in his quotation whether he is registered under GST, if yes, whether he intends to claim GST on forward charge basis. In absence of this declaration, BHEL will proceed further with the assumption that bidder intends not to claim

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter-VIII: TAXES AND DUTIES

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GST on forward charge basis. However, in case of GST registered transporter, the amount to the extent of goods and service tax will be retained till BHEL avails the credit of GST. Further, transporter shall issue tax invoice which inter alia includes gross weight of the consignment, name of the consigner and the consignee, registration number of vehicle in which the goods are transported, details of goods transported, details of place of origin and destination, GSTIN of the person liable for paying tax whether as consigner, consignee or goods transport bidder, and also containing other information as mentioned under rule 46.

- 14) **TDS under Income Tax shall be deducted at prevailing rates on gross invoice value from the running bills unless exemption certificate from the appropriate authority/ authorities is furnished.**
- 15) **TDS under GST shall be deducted at prevailing rates on applicable value from the running bills.**
- 16) **TCS under Income Tax 1961 has been implemented with effect from 1<sup>st</sup> October 2020 for every seller having turnover more than threshold limit during financial year immediately preceding financial year in which the sale of goods is carried out, who receives any amount as consideration for sale of any goods of the value or aggregate of such value exceeding threshold limit other than export of goods or who is already covered under other provision of section 206C, collect from the buyer, TCS as per applicable rates of the sale consideration exceeding threshold limit subject to following conditions**
- B**
- i. **uyer shall be as per clause (a) of section 206C- (1H)**
  - ii. **Seller shall be as per clause (b) of section 206C- (1H)**
  - iii. **No TCS is to be collected, if the seller is liable to collect TCS under other provision of section 206C or the buyer is liable to deduct TDS under any provision of the Act and has deducted such amount.**
- If Successful Bidder is falling under the purview of TCS then he has to submit a declaration in that respect along with relevant financial statements before the start of work or if bidder is falling under preview of TCS during the work in progress then bidder is compulsorily required to submit relevant financial statement in the beginning of the respective FY.**
- For TCS claim, vendor has to submit relevant documents required as per Income Tax Act.**
- 17) **Refer Annexure – 2 for BOCW Act & Cess Act.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: TAXES AND DUTIES

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### ANNEXURE-1

#### State wise GSTIN no.s of BHEL

Sl. No	Projects under state	GSTIN
1	Andhra Pradesh	37AAACB4146P7Z8
2	Bihar	10AAACB4146P1ZU
3	Chhattisgarh	22AAACB4146P1ZP
4	Gujarat	24AAACB4146P1ZL
5	Jharkhand	20AAACB4146P5ZP
6	Madhya Pradesh	23AAACB4146P1ZN
7	Maharashtra	27AAACB4146P1ZF
8	Orissa	21AAACB4146P1ZR
9	Telangana	36AAACB4146P1ZG

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX: Schedule of Rates and Quantities

Sch no.	Description of Work	UOM	QTY	Percentage w.r.t total lumpsum price quoted in the price bid
1	GENERAL OVERHAULING INCLUDING BEARING INSPECTION INCLUDING MOP, SPRING DECK SETTING.	LS	01	22.25%
2	ARRANGEMENT OF SAFETY ENGINEERS ALONG WITH COMPLIANCE OF ALL HSE REQUIREMENTS.	LS	01	1.35%
3	ARRANGEMENT OF HYDRAULIC TORQUE WRENCH	LS	01	2.70%
4	GOVERNING CHARACTERISTIC CHECKING & SETTING (ASSISTANCE):	LS	01	1.35%
5	INSPECTION, TUBES CLEANING & TESTING OF LUBE OIL COOLERS	NOS.	02	1.35%
6	TURBINE DRIVEN BOILER FEED PUMP NO. B – COMPLETE OVERHAULING OF DRIVE TURBINE AND BFP	NOS.	01	12.00%
7	BEARING INSPECTION TURBINE DRIVE BOILER FEED PUMP - A: TURBINE & PUMP	NOS.	01	5.20%
8	BEARING INSPECTION MOTOR DRIVEN BOILER FEED PUMP: MOTOR & PUMP	NOS.	01	2.70%
9	SUPPLY & APPLICATION OF CERAMIC INSULATION	LS	01	2.00%
10	REPLACEMENT OF CONICAL STRAINER	NOS.	02	1.56%
11	OVERHAULING OF EXCITER	LS	01	9.20%
12	MACHINING OF EXCITER ROTOR SLIP RING AREA AT SITE	LS	01	9.30%
	<b>OPTIONAL</b>			
13	VIBRATION ANALYSIS AND TRIM BALANCING (ASSISTANCE ONLY):	LS	01	0.90%
14	ARRANGEMENT OF TG EXPERT	NOS.	02	2.75%
15	REPLACEMENT OF BEARING (IF REQUIRED)	NOS.	02	1.65%
16	VALVE SEAT REPAIR/REPLACEMENT (IF REQUIRED)	NOS.	02	8.35%
17	SERVOMOTOR SERVICING (IF REQUIRED)	NOS.	01	0.55%
18	ATTENDING CC BOLT LEAKAGE OF GEN. ROTOR (IF REQUIRED)	LS	01	1.67%
19	ATTENDING CC BOLT LEAKAGE OF EXCITER ROTOR (IF REQUIRED)	LS	01	1.67%
20	GENERATOR ROTOR THREAD-OUT/IN (IF REQUIRED)	LS	01	11.50%
<b>TOTAL Lump-sum value to be quoted by the bidder in VOL II Price Bid</b>			<b>100%</b>	