

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 1 of 95

E- TENDER SPECIFICATION NUMBER

BHE/PW/PUR/TLRPT- CHIMNEY/2660

FOR

Job Description: Construction of One (1) no. 275 m tall twin flue RCC chimney (Civil, Structural, Mechanical and Electrical) excluding supply & application of borosilicate glass block lining system at 2X660MW NTPC TALCHER TPS PROJECT, Odisha.

VOLUME I – TECHNICAL BID

THIS TENDER SPECIFICATION CONSISTS OF:

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
Volume-IE	Technical Specification
Volume-II	Price Bid



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

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 2 of 95

CONTENTS		
Volume No	Description	Hosted in website www.bhel.com (Briefly) and detailed in BHEL e-Procurement Portal as files titled
NIL	Tender Specification Issue Details	(Part of Vol-I-A-2660)
NIL	Notice Inviting Tender	(Part of Vol-I-A-2660)
I-A	Technical Conditions of Contract	Vol-I-A-2660
I-B	Special Conditions of Contract	(Part of Vol-I-BCD-2660)
I-C	General Conditions of Contract	(Part of Vol-I-BCD-2660)
I-D	Forms & Procedures	(Part of Vol-I-BCD-2660)
I-E	Technical Specification	Vol-I-E-2660
II	Price Bid Specification as specified in E-Procurement Portal	Volume-II-PRICE-BID-2660

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 3 of 95

E-TENDER SPECIFICATION

E- TENDER SPECIFICATION NUMBER
BHE/PW/PUR/TLRPT- CHIMNEY/2660

FOR

Construction of One (1) no. 275 m tall twin flue RCC chimney (Civil, Structural, Mechanical and Electrical) excluding supply & application of borosilicate glass block lining system **at 2X660MW NTPC TALCHER TPS PROJECT, Odisha.**

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.

For Bharat Heavy Electricals Limited

GM (Purchase)

Place: Nagpur

Date:

2660

NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 5 of 95

Date: 03/11/2022

NOTICE INVITING TENDER (NIT)
NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES

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) through E-Procurement Portal <https://eprocurebhel.co.in> only, 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	TENDER NUMBER	BHE/PW/PUR/TLRPT- CHIMNEY/2660
ii	Broad Scope of job	Construction of One (1) no. 275 m tall twin flue RCC chimney (Civil, Structural, Mechanical and Electrical) excluding supply & application of borosilicate glass block lining system at 2X660MW NTPC TALCHER TPS PROJECT, Odisha.
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	Technical Specification Applicable
F	Volume-II	Price Schedule (Absolute value). Applicable
iv	Issue of Tender Documents	Tender documents will be available for downloading from BHEL website (www.bhel.com) or e-procurement portal (https://eprocurebhel.co.in) as per schedule below: Start: 03/11/2022, Time :18:00 Hrs Closes: 17/11/2022, Time : 13:00 Hrs Brief information of the tenders shall also be available at central public procurement portal. (https://eprocure.gov.in/epublish/app) Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	Date: 17/11/2022, Time :13:00 Hrs The bidder should submit their offer online only in e-Procurement portal at https://eprocurebhel.co.in Applicable

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 6 of 95

S No.	ISSUE	DESCRIPTION	
		<u>Bidders are requested to upload their offer well in advance in order to avoid last minute congestion at this website.</u> Hard copy bid or bids through E-mail / fax shall not be accepted.	
vi	OPENING OF TENDER (Techno-Commercial Bid)	Date: 17/11/2022, Time: 17:00 Hrs Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date & time of offer submission and opening of tenders get extended to the next working day. (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.	Applicable
vii	EMD AMOUNT	₹ 46,15,000/- (Rs Forty Six Lakh Fifteen Thousand Only) Important Note: 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.	Applicable
viii	COST OF TENDER	NIL	Not Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	One day before due date of offer submission. Along with soft version also, addressing to undersigned & to others as per contact address given below: 1) Name: Viveka Nand Jha Designation: Manager Deptt: Purchase Address: Floor no. 5 & 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001 Mobile-9429198214 Email : vivekjha@bhel.in 2) Mr. Kamlesh Kumar Designation: DGM Deptt: Purchase Address: Floor no. 5 & 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001 Email: kamleshbhel@bhel.in Mob: 9425554615 3) Name: R. M. Malhotra Designation: GM Deptt: Purchase Address: Floor no. 5 & 6, Shree Mohini Complex, 345	Applicable

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 7 of 95

S No.	ISSUE	DESCRIPTION	
		Kingsway, Nagpur-440001 Email : rmaalhotra@bhel.in	
x	SCHEDULE OF Pre Bid Discussion (PBD)	-----	Not Applicable
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	1) Shri Otem Dai, IAS (Retd.) 2) Shri Bishwamitra Pandey, IRAS (Retd.) 3) Shri Mukesh Mittal, IRS (Retd.)	Not Applicable
xii	Latest updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage (www.bhel.com →Tender Notifications →View Corrigendum), Central Public Procurement portal (https://eprocure.gov.in/epublish/app) & on e-tender portal https://eprocurebhel.co.in 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	5th 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.

(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.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 8 of 95

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.
- iii. 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
- iv. would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.
- v. 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.
- vi. 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:-

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:

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 9 of 95

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

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.

Please refer <http://www.mca.gov.in/> → MCA SERVICES → DSC SERVICES for DSC certifying authorities.

Vendors are also requested to go through bidder 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
	Part I-A	
	<u>ENVELOPE – I superscribed as:</u> PART I (TECHNO COMMERCIAL BID) TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION: <u>CONTAINING THE FOLLOWING:-</u>	
i. —	Covering letter/Offer forwarding letter of Tenderer.	
ii. —	Duly filled in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above. <u>Note:</u> a. In case of any deviation, the same should be submitted separately for technical & 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. b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding. i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender	
iii. —	Supporting documents/ annexure/ schedules/ drawing etc. as required in line with Pre-	

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 10 of 95

	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.	

	PART I B	
	<u>ENVELOPE — II superscribed as:</u> PART I (EMD) TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION: <u>CONTAINING THE FOLLOWING:-</u>	
	Earnest Money Deposit (EMD) in the form as indicated in this Tender	

	PART II	
	PRICE BID consisting of the following shall be enclosed	
	<u>ENVELOPE III</u> <u>superscribed as:</u> PART II (PRICE BID) TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION: <u>CONTAINING THE FOLLOWING</u>	
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)	

	OUTER COVER	
	<u>ENVELOPE IV (MAIN ENVELOPE / OUTER ENVELOPE)</u> <u>superscribed as:</u> TECHNO-COMMERCIAL BID, PRICE BID & EMD TENDER NO: NAME OF WORK: PROJECT:	

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 11 of 95

	DUE DATE OF SUBMISSION:	
	CONTAINING THE FOLLOWING:	
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:

A. Bidder's capacity for executing the job under tender shall be assessed 'LOAD' wise and 'PERFORMANCE' wise 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 3rd 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 3rd 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':**

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 12 of 95

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 calculate cumulative sum ' S_T ' of 'Monthly Performance Evaluation' Scores for total similar Packages ' P_T ' for all Regions (i.e. ' $S_T = S_1 + S_2 + S_3 + S_4 + S_5 + \dots + S_N$ ')
- d) **Overall Performance Rating ' R_{BHEL} ' for the Similar Package/Packages** (under execution/ executed during the 'Period of Assessment') in all the Power Sector Regions of BHEL

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

$$= \frac{S_T}{T_T}$$

- e) Bidders to note that the risk of non-evaluation or non-availability of the 'Monthly Performance Evaluation' reports as per relevant formats is to be borne by the Bidder.
- f) Table showing methodology for calculating 'a', 'b' and 'c' above

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_1	P_2	P_3	P_4	P_5	...	P_N	Total No. of similar packages for all Regions = P_T i.e. Sum (Σ) of columns (iii) to (ix)

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 13 of 95

Sl. No.	Item Description	Details for all Regions							Total
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
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 ₁	T ₂	T ₃	T ₄	T ₅	...	T _N	Sum (Σ) of columns (iii) to (ix) = T _T
3	Monthly performance scores for the corresponding period (as in Row 2)	S ₁₋₁ , S ₁₋₂ , S ₁₋₃ , S ₁₋₄ , ... S _{1-T1}	S ₂₋₁ , S ₂₋₂ , S ₂₋₃ , S ₂₋₄ , ... S _{2-T2}	S ₃₋₁ , S ₃₋₂ , S ₃₋₃ , S ₃₋₄ , ... S _{3-T3}	S ₄₋₁ , S ₄₋₂ , S ₄₋₃ , S ₄₋₄ , ... S _{4-T4}	S ₅₋₁ , S ₅₋₂ , S ₅₋₃ , S ₅₋₄ , ... S _{5-T5}		S _{N-1} , S _{N-2} , S _{N-3} , S _{N-4} , S _{N-TN}	-----
4	Sum of Monthly Performance scores of the corresponding Package for the corresponding period (as in row-3)	S ₁	S ₂	S ₃	S ₄	S ₅	...	S _N	Sum (Σ) of columns (iii) to (ix) = S _T

- ii). Calculation of Overall 'Performance Rating' (R_{BHEL}) in case at least 6 evaluation scores for 'similar Package/Packages' for the tendered scope ARE NOT AVAILABLE, during 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 packages, divided by the total number of Package months for which evaluation should have been done. 'R_{BHEL}' shall be calculated subject to availability of 'performance scores' for at least 6 'package months' in the order of precedence below:

- 'Period of Assessment' i.e. 6 months preceding and including the cut-off month
- 12 months preceding and including the cut-off month
- 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	=60	NA
2	> 60 and ≤ 65	0.4
3	> 65 and ≤ 70	0.35
4	> 70 and ≤ 75	0.25

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 14 of 95

5	> 75 and < 80	0.2
6	≥ 80	NA

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. ‘Assessment of Capacity of Bidder’:

‘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 $R_{BHEL} = 60$, $P_{Max} = '1'$
- iii). For $R_{BHEL} \geq 80$, there will be no upper limit on P_{Max}

The Bidder shall be considered ‘Qualified’ 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)

In addition to above, in case contractor fails to score more than 5 (five) marks in the scaled down scores of HSEPES for “more than 2 months in a period of 6 months preceding and including the cut-off month in any single package”, the contractor shall be considered disqualified for ongoing tender(s) of BHEL. Qualification of bidder for further tendering process shall be subject to qualifying this condition in addition to qualifying requirements mentioned in PQR. Bidders who did not qualify this condition shall not be considered under the provisions of clause 9 IV (iv) of NIT.

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

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 15 of 95

iv). Structural Steel Fabrication & Erection v). Chimney vi). Cooling Tower vii). Others (Civil)		iv). LP Piping v). Steam Turbine Generator set & Aux vi). Gas Turbine Generator set & Aux 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 (R_{BHEL}) ≥ 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 ≥ 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’.

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 16 of 95

Note:- In case, the number of bidders qualified against Technical and Financial Qualification criteria itself is less than four, then all bidders (a)- having Overall Performance Rating ('R_{BHEL}') ≥60, (b)- First timer" bidders having average of available performance scores ≥60 upto and including the Cut Off month, (c)- "First timer" bidders for whom no performance score is available in the system upto and including the Cut Off month, 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 27th 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.
- ix). 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 <https://eprocurebhel.co.in>, 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

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 17 of 95

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. No.	IEM	Email
1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in
2.	Shri Bishwamitra Pandey, IRAS (Retd.)	iem2@bhel.in
3.	Shri Mukesh Mittal, IRS (Retd.)	iem3@bhel.in

- (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:

Details of contact person(s):

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 18 of 95

Name:	R M Malhotra/ GM (Purchase)	Viveka Nand jha/Manager (Purchase)
Dept:	Purchase Department	
Address:	Floor No. 5 & 6, Shreemohini Complex, 345 Kingsway, Nagpur-440001	
Email:	rmalhotra@bhel.in	vivekjha@bhel.in
Phone:	0712-2858633	9429198214

- 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) (<https://www.bhel.com/guidelines-reverse-auction-2021>) 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. No benefits to MSE bidders w.r.t Reverse Auction Guidelines as available on www.bhel.com against works contract.
 2. In case of enquiry through e-procurement the sealed electronic price bid (e-bid) is to be treated as sealed envelope price bid.
- 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 Consortium Bidding (or Technical Tie up) shall be allowed only if specified in Pre-Qualifying Requirement (PQR) criteria, and in such a case the following shall be complied with:
- 23.1 Prime Bidder and Consortium Partner or partners are required to enter into a consortium agreement for the said contract with a validity period of six months initially. In case bidder becomes L1, Consortium Agreement valid till contractual completion period shall be submitted to BHEL before signing the contract.

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 19 of 95

Consortium Agreement shall be kept valid till scope of work awarded to consortium partner(s) as per contract is completed.

- 23.2 'Standalone' bidder cannot become a 'Prime Bidder' or a 'Consortium bidder' or 'Technical Tie up bidder' in a consortium (or Technical Tie up) bidding. Prime bidder shall neither be a consortium partner to other prime bidder nor take any other consortium partners. However, consortium partner may enter into consortium agreement with other prime bidders. In case of non-compliance, consortium bids of such Prime bidders will be rejected.
- 23.3 Number of partners for a Consortium Bidding (or Technical Tie up) including Prime Bidder shall be NOT more than 3 (three).
- 23.4 Prime Bidder shall be as specified in the Pre-Qualification Requirement, else the bidder who has the major share of work.
- 23.5 In order to be qualified for the tender, Prime Bidder and Consortium partner or partners shall satisfy (i) the Technical 'Pre Qualifying Requirements' specified for the respective package, (ii) "Assessment of Capacity of Bidder" as specified in clause 9.0.
- 23.6 Prime Bidder shall comply with additional 'Technical' criteria of PQR as defined in 'Explanatory Notes for the PQR'.
- 23.7 Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified
- 23.8 In case customer approval is required, then Prime Bidder and Consortium Partner or partners shall have to be individually approved by Customer for being considered for the tender.
- 23.9 Prime Bidder shall be responsible for the overall execution of the contract.
- 23.10 In case of award of job, Performance shall be evaluated for Prime Bidder and Consortium Partner or partners for their respective scope of work(s) as per prescribed formats.
- 23.11 In case the Consortium partner or partners back out, their SDs shall be encashed by BHEL and BHEL shall take necessary action as per extant guidelines. In such a case, other consortium partner or partners meeting the PQR have to be engaged by the Prime Bidder, and if not, the respective work will be withdrawn and executed on risk and cost basis of the Prime Bidder. The new consortium partner or partners shall submit fresh SDs as applicable.
- 23.12 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.
- 23.13 After execution of work, the work experience shall be assigned to the Prime Bidder and the consortium partner or partners for their respective scope of work. After successful execution of one work with a consortium partner under direct order 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.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 20 of 95

23.14 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. In case there are two consortium partners, then each partner shall submit SD equivalent to 0.5% of the total contract value in addition to the SD to be submitted by the Prime Bidder for the total contract value. However, Prime Bidder has also option for submission of SD on behalf of consortium partner (s).

SD submitted by Consortium Partner(s) may be released in case corresponding scope of work of the respective Consortium partner(s) has been completed upto the extent of 80% based on certification by Construction Manager and concurrence by the prime bidder.

23.15 In case of a Technical Tie up, all the clauses applicable for the Consortium partner shall be applicable for the Technical Tie up partner also.

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 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.

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.

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 21 of 95

- (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 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 04.06.2020 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

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 22 of 95

-
- 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.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 23 of 95

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

(General Manager - Purchase)

Enclosure:

1.0 Annexure-1: Pre Qualifying Requirements.

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 24 of 95

-
- 2.0 Annexure-2: Check List.
 - ~~3.0 Annexure-3: Certificate by Chartered Accountant~~
 - 4.0 Annexure-4: Reverse Auction Process Compliance Form
 - 5.0 Annexure-5: Authorization of representative who will participate in the online Reverse Auction Process
 - 6.0 Annexure-6: RA Price Confirmation and Breakup
 - 7.0 Annexure-7: Integrity Pact
 - 8.0 Annexure-8: Undertaking as per PQR C4 of Annexure-1 i.e. PQR
 - 9.0 Annexure-9: Declaration reg. Related Firms & their areas of Activities
 - 10.0 Annexure-10: Declaration regarding minimum local content
 - 11.0 Annexure-11: Declaration regarding compliance to restrictions under rule 144 (xi) of GFR 2017
 - 12.0** Annexure 12: Important information.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 25 of 95

ANNEXURE-1

PRE QUALIFYING CRITERIA

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660			
JOB	Construction of One (1) no. 275 m tall twin flue RCC chimney (Civil, Structural, Mechanical and Electrical) excluding supply & application of borosilicate glass block lining system at 2X660MW NTPC TALCHER TPS PROJECT, Odisha.		
S No	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Applicability	
A	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)	Applicable	
B	Technical PQR Bidder shall essentially meet all the Qualifying Requirements (i.e. (B.1and B.2) or (B.1 and B.3 and (B.3.a or B.3.b)) as under, in the last seven years as on latest date of bid submission: B.1: Bidder should have Executed “Piling or Civil or Structure or ‘Civil and Structural Works’ or RCC Chimney or RCC Cooling Tower or RCC Silo or Mill Bunker or any combination of these works” for any one of the following in the last seven years from latest date of bid submission: B.1.1) Executed One work of value not less than Rs. 2892 Lakhs against single work order. OR B.1.2) Executed Two works each of value not less than Rs. 1807.5 Lakhs against maximum two work orders. OR B.1.3) Executed Three works each of value not less than Rs. 1446 Lakhs against maximum three work orders. And B.2: Bidder should have built one “Reinforced Cement Concrete Chimney” of at least 100 Mtr height with Slipform shuttering against a single contract in the last seven years from latest date of bid submission. Or B.3: Bidder should have executed Reinforced Cement Concrete (RCC) quantities of at least 9690 Cum within a period of twelve consecutive months against one running/ completed contract of Nuclear/coal based/lignite/ based power plant of installed capacity of 500MW or higher capacity. And B.3.a: Bidder should have executed one “Reinforced Cement Concrete Chimney Shell” of at least 100 Mtr height with Slipform shuttering against a single contract in the last seven years from latest date of bid submission.	Applicable	

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 26 of 95

	Or B.3.b: Bidder should have executed one “Natural Draft Cooling Tower Shell” of at least 100 Mtr height with jumpform shuttering against a single contract in the last seven years from latest date of bid submission. Note: Bidder should satisfy PQR (B.1and B.2) or (B.1 and B.3 and (B.3.a or B.3.b)) as a standalone bidder. For qualification against (B.1 and B.3 and (B.3.a or B.3.b)); In case a bidder does not satisfy B.3.a or B.3.b, then the bidder can form consortium with one party who satisfies the PQR B.3.a or B.3.b above. This will be termed as “Consortium Bidding”. In case of consortium bidding, following shall be applicable: • Prime bidder should satisfy PQR (B.1 and B.3) above. • Agency satisfying PQR B.3.a or PQR B.3.b shall be termed as “Consortium Partner”. • Prime bidder shall be responsible for satisfying the financial PQR-C (i.e. C-1, C-2, C-3 & C.4). • Prime bidder shall submit the entire tender along with the credentials, all statutory documents and the documents in support of PQR condition of the Consortium Partner. All conditions as in Clause 23 of NIT shall also be applicable for consortium bidding.		
C-1	Financial TURNOVER Bidders must have achieved an average annual financial turnover (audited) of ₹1084.5 Lakhs or more over last three Financial Years (FY) i.e. “2019-20 , 2020-21 & 2021-22”	Applicable	
C-2	NETWORTH (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	
C-3	PROFIT Bidder must have earned profit in any one of the three Financial Years as applicable in the last three Financial Years as furnished for ‘C-1’ above.	Applicable	
C-4	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 (Annexure-8) to this effect	Applicable	
D	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT (if applicable) Applicable, The “Assessment of Capacity of Bidders” for this Tender shall be carried out by considering the identified packages i.e. “Civil Works including foundations” and “Chimney” in line with NIT cl no 23.5 Qualification against (B.1and B.2): Only Chimney	Applicable	

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 27 of 95

E	Approval of Customer only in case Qualification against (B.1 and B.3 and (B.3.a or B.3.b))	Applicable	BY BHEL
F	Price Bid Opening Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E		BY BHEL
G	Consortium tie-ups	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_N = 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).

X₀ = All India Avg. Consumer Price index for industrial workers for last month of work execution

Y_N = 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).

Y₀ = Monthly Whole Sale Price Index for All Commodities for last month of work execution

Explanatory Notes for PQR B.2 (Technical):

For the purpose of "B.2 Technical Criteria", the term 'BUILT RCC CHIMNEY' means Chimney should be completed.

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.

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 28 of 95

- 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 three 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 three 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 ≥50% in the subsidiary company (as per Format-1).

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 29 of 95

-
- 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

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 30 of 95

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.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 31 of 95

Format-1

Certificate for relationship between Parent Company / Subsidiary Company and the bidder

To,

.....

.....

Dear Sir,

Sub: Bid for NIT Nodated..... for "....." (name of the tender).

We hereby certify that M/s..... is Parent Company/ Subsidiary Company of M/s(the bidder) and details of equity holding of the Parent Company in Subsidiary Company as on(not earlier than seven days prior to the Bid Submission Date) are given as below:

Name of Parent Company	Name of Subsidiary Company	Percentage of Equity Holding of Parent Company in Subsidiary Company

(Insert Name and Signature of Statutory Auditor or practicing Company Secretary of the Bidder)

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 32 of 95

Format-2

**Undertaking from the Parent Company/ Subsidiary Company of the bidder
(On the Letter Head of Parent Company/ Subsidiary Company, as applicable)**

From,
Name:
Full Address:

Telephone No.:
E-mail address:
Fax/No.:

To,

Dear Sir,

We refer to the NIT No dated for "....." (name of the Tender).

"We have carefully read and examined in detail the NIT/Tender Terms and Conditions, including in particular, Clause of the NIT/Tender, regarding submission of an Undertaking, as per the prescribed Format 1 of the NIT/ Tender.

We confirm that M/s.....(the Bidder) has been authorized by us to use our Technical capability for meeting the Technical Criteria as specified in Clause.....of the PQR of the NIT/Tender referred above.

We agree to submit the Security Deposit equivalent to 1% of the total contract value in addition to Security Deposit to be submitted by Bidder as per Clause.....of the NIT/Tender for fulfillment of all obligations in terms of provisions of the contract, in the event of(the Bidder) being selected as the Successful Bidder.

We confirm that we along with M/s.....(the bidder), are jointly or severally responsible for successful performance of the contract.

We confirm that our company shall not participate in the above tender as a 'Standalone Bidder' or as a 'Consortium bidder' and also shall not authorize any other bidder to use our Technical capability for the above tender.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the referred NIT/Tender.

Signature of Managing Director/Authorized signatory of Parent/ Subsidiary Company

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 33 of 95

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	DD No: Date : Bank : Amount: <u>Please tick (√) whichever applicable:-</u> ONE TIME EMD / ONLY FOR THIS TENDER	
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 PRE QUALIFICATION CRITERIA (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
7	Audited profit and Loss Account for the last three years	Applicable/ Not Applicable	YES/NO
8	Copy of GST & PAN Card	Applicable/ Not Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc. are read understood and signed	Applicable/ Not Applicable	YES/NO
10	Integrity Pact	Applicable/ Not Applicable	YES/NO
11	Offer Forwarding Letter / Tender Submission Letter	Applicable/ Not Applicable	YES/NO
12	Declaration by Authorized Signatory	Applicable/ Not Applicable	YES/NO

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 34 of 95

13	No Deviation Certificate	Applicable/ Not Applicable	YES/NO
14	Declaration confirming knowledge about Site Conditions	Applicable/ Not Applicable	YES/NO
15	Declaration for relation in BHEL	Applicable/ Not Applicable	YES/NO
16	Non-Disclosure Certificate	Applicable/ Not Applicable	YES/NO
17	Bank Account Details for E-Payment	Applicable/ Not Applicable	YES/NO
18	Capacity Evaluation of Bidder for current Tender	Applicable/ Not Applicable	YES/NO
19	Tie Ups/Consortium Agreement are submitted as per format	Applicable/ Not Applicable	YES/ NO
20	Power of Attorney for Submission of Tender/Signing Contract Agreement Power of Attorney of Consortium Partner.	Applicable/ Not Applicable	YES/NO
21	Analysis of Unit rates	Applicable/ Not Applicable	YES/NO
22	Annexure-5: Authorization of representative who will participate in the online Reverse Auction Process	Applicable/ Not Applicable	YES/NO
23	Annexure-6: RA Price Confirmation and Breakup	Applicable/ Not Applicable	YES/NO
24	Annexure-8: Undertaking as per PQR C4 of Annexure-1 i.e. PQR	Applicable/ Not Applicable	YES/NO
25	Annexure-9: Declaration reg. Related Firms & their areas of Activities (x) Other Tender documents as per this NIT.	Applicable/ Not Applicable	YES/NO
26	Annexure-10 Declaration regarding minimum local content	Applicable/ Not Applicable	YES/NO
27	Annexure-11: Declaration regarding compliance to restrictions under rule 144 (xi) of GFR 2017	Applicable/ Not Applicable	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)

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 35 of 95

ANNEXURE-3

Certificate by Chartered Accountant on letter head

(applicable upto 31st March'2021 in line with MSME notification no. S.O. 2119 (E), dated 26th 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. Lacs
2. For Service Enterprises: Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the **MSMED Act, 2006**:
Rs. Lacs
3. For Enterprises (having EM II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs. Lacs and turnover is Rs. Lacs (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. Lacs and turnover is Rs. Lacs (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. Lacs is within permissible limit of Rs. Lacs 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 1st 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

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 36 of 95

[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. { BHE/PW/PUR/TLRPT- CHIMNEY/2660 } 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.

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 37 of 95

[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	

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 38 of 95

[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

BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

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/PUR/TLRPT-CHIMNEY/2660 } dt.{...}

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.

The price break-up is as given below.

Total

=====

- Rs. in value & in words

=====

Yours sincerely,

For _____

Name:

Company:

Date:

Seal:

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 39 of 95

[ANNEXURE-7](#)

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi -110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for **E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660** (Job Description: Construction of One (1) no. 275 m tall twin flue RCC chimney (Civil, Structural, Mechanical and Electrical) excluding supply & application of borosilicate glass block lining system at 2X660MW NTPC TALCHER TPS PROJECT, Odisha.)

(hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws

of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1-Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 40 of 95

enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 -Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during participation in the tender process and during the contract execution.
 - 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. 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.
 - 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) 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.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

Section 3 -Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process , terminate the contract, if already awarded, exclude from future business dealings

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 41 of 95

and/ or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 -Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above , the Bidder(s)/ Contractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee , whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

Section 5 -Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 -Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

Section 7 -Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 42 of 95

inform the Vigilance Office.

Section 8 -Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.
- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a Bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some Bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity; they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Principal should be looked into by the CVO of the Principal.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 43 of 95

-
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

Section 9 -Pact Duration

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties till the final completion of contract for successful Bidder, and for all other Bidders 6 months after the Contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 -Other Provisions

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract,

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 44 of 95

in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.



2022 for 03/11/2022

For & On behalf of the Principal

For & On behalf of the Bidder/ Contractor

(Office Seal)

(Office Seal)

Place-----

Date-----

Witness: _____

(Name & Address) _____

Nagpur
03/11/2022

Witness: _____

(Name & Address) _____

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 45 of 95

[ANNEXURE-8](#)

UNDERTAKING

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

To,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Dear Sir/Madam,

Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS

Ref: NIT/Tender Specification No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

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:

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 46 of 95

[ANNEXURE-9](#)

DECLARATION

Date: _____

To,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

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: _____

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 47 of 95

[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)**

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

To,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Dear Sir,

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

Ref : 1) NIT/Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660 ,
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.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 48 of 95

[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,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Dear Sir,

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

Ref : 1) NIT/Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660 ,
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 fulfill 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.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/TLRPT- CHIMNEY/2660

Page 49 of 95

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: vivekja@bhel.in , Mob: 9429198214

DGM Purchase, Email: kamleshbhel@bhel.in, Ph: +91-712-3048-645

GM Purchase, Email: rmalhotra@bhel.in . Ph: +91-712- 2858-633

1. Refer the abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' which is available at www.bhel.com on "supplier registration page" at the following link: https://www.bhel.com/sites/default/files/suspension_guidelines_abridged.pdf
2. **"Pradhan Mantri Kaushal Vikas Yojna:** The contractor shall, at all stages of work deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/Industrial Training Institute/ National Institute of Construction Management and Research (NICMAR), National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/ Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs.100 per such tradesman per day. Decision of Engineer-in-Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding".
3. **All Statutory Requirements as applicable for this project shall be complied with.**
4. **BHEL Fraud Prevention Policy:** "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."
5. The following clause is added under clause 1.10 Security Deposit in Vol-1C:
Clause No 1.10.8 of Vol-IC General Conditions of Contract: Timely Submission of Security Deposit for Execution of the contract: "Bidder agrees to submit Security Deposit required for execution of the contract within the time period mentioned. In case of delay in submission of Security Deposit, enhanced Security Deposit which would include interest (Base rate of SBI +6%) for the delayed period, shall be submitted by the bidder. Further, if Security Deposit is not submitted till such time the first bill becomes due, the amount of Security Deposit due shall be recovered as per terms defined in NIT/contract, from the bills along with due interest."

BHEL PSWR
Notice Inviting Tender

E-Tender Spec No: BHE/PW/PUR/SPTPT-ENB/2554

Page 50 of 95

6. 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".

7. The clause 2.7.9.1 below is added under the heading "Rights of BHEL" of General Conditions of Contract Volume-IC GCC:

2.7.9.1 Provision of Penalty in case of slippage of Intermediate Milestones:

- i) Two major Intermediate Milestones are mentioned as M1 & M2 in Chapter VI: Time Schedule of Vol IA Technical Conditions of Contract.
- ii) In case of slippage of these identified Intermediate Milestones, Delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones in reference to Form 14.
- iii) In case delay in achieving M1 Milestone is solely attributable to the contractor, 0.5% per week of Executable Contract Value*, limited to maximum 2% of Executable Contract Value, will be withheld.
- iv) In case delay in achieving M2 Milestone is solely attributable to the contractor, 0.5% per week of Executable Contract Value*, limited to maximum 3% of Executable Contract Value, will be withheld.
- v) Amount already withheld, if any against slippage of M1 milestone, shall be released only if there is no delay attributable to contractor in achievement of M2 Milestone.
- vi) Amount required to be withheld on account of slippage of identified intermediate milestone(s) shall be withheld out of respective milestone payment and balance amount (if any) shall be withheld @10% of RA Bill amount from subsequent RA bills.
- vii) Final deduction towards LD (if applicable as per clause 2.7.9 above), on account of delay attributable to contractor shall be based on final delay analysis on completion / closure of contract. Withheld amount, if any due to slippage of identified intermediate milestone(s) shall be adjusted against LD or released as the case may be.
- viii) In case of termination of contract due to any reason attributable to contractor before completion of work, the amount already withheld against slippage of intermediate milestones shall not be released and be converted into recovery.

* **Executable Contract Value** - Value of work for which inputs/ fronts were made available to contractor and were scheduled for execution till the date of achievement of that milestone.

8. **Following clause of Volume-I-C-General Conditions of Contract clause shall not be applicable for this contract:**

a) 2.12 ORC

9. Commencement Period for "Performance Guarantee for Workmanship" as per clause no 2.24 of Vol-IC GCC: This period shall commence after the completion of work as certified by Engineer-in-Charge.

10. Acceptance of Bank Guarantee (BG)

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

Clause No. 1.10.3 (iii) 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.

**BHEL PSWR
Notice Inviting Tender**

E-Tender Spec No: BHE/PW/PUR/SPTPT-ENB/2554

Page 51 of 95

Bank of Baroda
Canara Bank
Citi Bank N.A.
Corporation Bank
Deutsche Bank
HDFC Bank Ltd.
The Hongkong and Shanghai Banking Corporation Ltd
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".

11. 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) (<https://www.bhel.com/guidelines-reverse-auction-2021>) 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. No benefits to MSE bidders w.r.t Reverse Auction Guidelines as available on www.bhel.com against works contract.*
- 2. In case of enquiry through e-procurement the sealed electronic price bid (e-bid) is to be treated as sealed envelope price bid.*

12. In Case of consortium bidding, Scope of Consortium bidder is as follows:

BOQ sr No- 16-ii a, 16 ii-b, 17-ii- a, 17 a1

2660

TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS
LIMITED



SI No	DESCRIPTION	Chapter
Volume-IA	Part-I: Contract specific details	
1	Project Information	Chapter-I
2	Scope of Works and Technical Specifications	Chapter-II
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV
5	T&Ps and MMEs to be deployed by BHEL on sharing basis	Chapter-V
6	Time Schedule	Chapter-VI
7	Terms of Payment	Chapter-VII
8	Taxes and other Duties	Chapter-VIII
9	Technical Specifications and Plot Plan	Chapter-IX
10	Appendix	Chapter-X
11	Bill of Quantities and % Weightage of Individual Items for	Chapter-XI

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: Project Information

1.0	Project Information		
1.1	<u>INTRODUCTION:</u>		
	Sl. No.	Description	Details
	1	Project Title	2x660 MW Talcher Thermal Power Station
	2	Customer	National Thermal Power Corporation Limited (NTPC Limited)
	3	Location	The proposed site is at a distance of about 4 km from Talcher town and about 25 km from district headquarters Angul in Odisha state, India.
	4	Nearest Railway Station	Talcher is on Talcher-Cuttack section of North Eastern Railway (renamed East Coast Railway) at about 2 Km. However, a small railway station named 'Talcher Thermal' is located near project boundary.
	5	Nearest Airport	Bhubaneswar (54approx.. 150Km by road)
	6	Access By Road/Major Cities	The area is accessible by NH-23 (renamed NH-149) at about 1 km.
	7	Temperature	Mean of daily minimum temperature = 15.1°C Mean of daily maximum temperature = 39.8°C
	8	Seismic Zone	The project site lies in zone III as defined in IS: 1893.
	9	Wind Speed	Design wind speed is 50 m/sec as per IS: 875 Part III
	Sl. No.	Description	Details
	1	Project Title	2x660 MW NTPC Talcher TPS

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: Project Information

	2	Customer	NTPC
	3	Location	The proposed site is at a distance of about 4 km from Talcher town and about 25 km from district headquarters Angul in Odisha state, India. Nearest railway station named Talcher is on Talcher-Cuttack section of North Eastern Railway (renamed East Coast Railway) at about 2 Kms. However, a small railway station named 'Talcher Thermal' is located near project boundary. The area is accessible by NH-23 (renamed NH-149) at about 1 km. The nearest commercial airport is at Bhubaneswar at an aerial distance of 90km approx. and about 150 km by road.
	4	Nearest Railway Station	Talcher (Approx. 2 Kms)
	5	Nearest Airport	Bhubaneswar (Approx. 90 Kms)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

2.0 **SCOPE OF WORK**

Construction of One (1) no. 275 m tall twin flue RCC chimney EXCLUDING SUPPLY & APPLICATION OF BOROSILICATE GLASS BLOCK LINING SYSTEM with 02 (Two) no's structural flue liners including all civil, electrical & elevator works of 2X660 MW TALCHER TPP STAGE III, District headquarters Angul in Odisha state, India

Detailed Scope of Work: -

Construction of (1 no of 275 M height) twin flue RCC Chimney complete in all respect including RCC Works, Fabrication & Erection of Steel Flue Cans, Fabrication and Erection of Mini Shell of Titanium as per Specification, Erection of Shop Fabricated Structural Platforms, Supply & Installation of Electrical Items, Supply, erection & commissioning of elevator in conformity with the approved layout etc., to complete the Chimney in all respects at NTPC 2X660 MW TALCHER TPP STAGE III.

The scope work for Chimney Civil Works under the specification covers the supply, storage at site, storage of material supplied by BHEL (i.e. taking delivery of materials from plant gate / BHEL stores, transportation to site), Civil and Architectural works as specified hereinafter but without excluding any other necessary components, which are not mentioned herein but are required for the completeness and efficient, easy and reliable operation of the system.

The works to be performed under this specification include execution of complete civil and architectural works for foundations for equipment, buildings, facilities, substructures, superstructures including inserts as per the detailed scope and specification enclosed elsewhere in this tender document. **The scope of work include supply of all materials including Solid Titanium plate, equipment and facilities required for the scope of work excluding Cement, Structural Steel, Reinforcement Steel (TMT) & Shop Fabricated Steel Structure and Closed Cell Borosilicate Glass Block Lining System, that shall be issued by BHEL free of cost as per Schedule of Items.**

- 2.0.1 The work comprises of construction of 275 m high Reinforced Concrete Twin Flue Chimney RCC Foundation, Shell, Internal Steel Platforms, Staircase, Fixtures, Fittings, Conduit and other Embedment, Lift (inside windshield), Ventilation etc. complete, insulation and provision of other accessories including external platforms, fabrication and fixing of flue duct inside the chimney, complete interior and Air Aviation Obstruction lighting system, gas sampling ports, opacity measurement ports, lightning protection and grounding system, doors for access to the shell, external platforms and inspection of the liners, ladders, communication system components, embedment for installation of equipment and fixtures and painting both internal and external of the chimney shell as well as of all doors, stairs, ladders and other structural steel items in accordance with this specification and approved drawings.
- 2.0.2 Supply including design, receipt, unloading, erection, testing and commissioning of stack elevator and electrical equipment; allied items, cabling, earthing, spares etc. are also under the scope of this of work.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

- 2.0.3 Laying / Cutting & Re-welding of associated electrical earthing works below the road & drains and surrounding areas shall also be done by civil contractor as per drawings.
- 2.0.4 The complete works have to be carried out by providing all labour, supervision, materials, scaffolding, power, fuel, construction equipment, tools & plants, inspection, measuring, testing instruments, supplies, transportation, storage, and all incidental items not herein specifically mentioned but reasonably or found required for the successful completion of work.

2.1 Chimney Works Scope:

- 2.1.1 The contractor shall prepare, at his own cost, the detailed working drawings showing all details of the formwork staging (adequacy to be supported by design calculations) and other arrangements for the concreting work and submit six copies of the same duly approved/vetted by reputed consultants like **DCPL, TCE, Fichtner India, Desein or any other consultant with consent of BHEL engineer** and only on the receipt of the approval/vetting of the consultants the work shall be taken up. However, the consultant's approval of the design/drawings shall not absolve the Bidder of his responsibility for correctness of design, accuracy of dimensions, loadings, details, etc., or safety and stability of the structure including foundations, accessories, appurtenances, etc. Any modifications/change in subsequent revisions of design/drawings shall be clearly marked and identified with a revision of the approval. All modifications suggested by the Owner/BHEL to meet specification requirements and sound engineering practice, shall be incorporated by the Bidder at no extra cost to the Owner.
- 2.1.2 Design, Drawings & GAD of Slip formwork shall be required to be vetted by a reputed consultant. Any other design input in the scope of vendor shall be required to be vetted/approved by reputed consultant listed above.
- 2.1.3 The contractor shall prepare, at his own cost, the detailed working drawings showing all Electrical details and Elevator details and shall submit six copies of the same for the approval of the Engineer-in-Charge /consultants and only on the receipt of the approval of the consultants the work shall be allowed to be taken up.
- 2.1.4 Supply including design, receipt, unloading, erection, testing and commissioning of stack elevator and electrical equipment; allied items, cabling, earthing, spares etc. are also under the scope of this of work.
- 2.1.5 The complete works have to be carried out by providing all labour, supervision, materials, scaffolding, power, fuel, construction equipment, tools & plants, inspection, measuring, testing instruments, supplies, transportation, storage, and all incidental items not herein specifically mentioned but reasonably or found required for the successful completion of work.
- 2.1.6 In case, due to any cause attributable to the contractor, such concrete, steel, etc. occurs rendering the same unusable, then it shall be removed without any extra cost.
- 2.1.7 Cement, Structural Steel, Reinforcement Steel (TMT) & shop fabricated steel structures (as per schedule of items) shall be issued by BHEL free of cost.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

2.1.8 Supply and installation of Closed Cell Borosilicate Glass Block Lining System shall be excluded from this scope of work. However, surface preparation of FLUE CANS should be suitable for application of Closed Cell Borosilicate Glass Block Lining System. There should not be any defects like improper fit-up, improper joint welding, left-out lifting hooks & any other left-out attachments before handing-over of flue liner to borosilicate application agency.

2.2 **General Scope:**

- 2.2.1 Furnishing all labour, materials, supervision, construction plans, equipment, supplies, transport, to and fro the site, fuel, compressed air, and all other incidental items and temporary works not shown on specified but reasonably implied or necessary for the proper completion, maintenance and handling over the works, except in accordance with the stipulations laid down in the contract documents and additional stipulations as may be provide by the engineer during the course of works.
- 2.2.2 Furnishing samples of all materials required by the engineers for testing/inspection and approval of BHEL/NTPC for use in the works. The samples may be retained by the engineer for final incorporation in the works.
- 2.2.3 Furnishing test reports for the products used or intended to be used, if called for the specifications or if so desired by the engineer.
- 2.2.4 Giving all notices, paying all fees, taxes etc., in accordance with the general conditions of contract, that is required for all works including temporary works.
- 2.2.5 Arranging manufacturer's supervision for items of work done as per manufacturer's specifications when so specified.
- 2.2.6 Carrying out topographic survey of the entire and establish levels and coordinates at suitable intervals from existing grid levels and coordinates furnished by the owner established bench marks, setting out the locations and levels of proposed structures, constructions and marking of reference pillars and other identification works etc., The contractor shall provide the owner/BHEL such a assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any material used.
- 2.2.7 Providing all incidental items not shown or specified but reasonably implied or necessary for the successful completion of the work in accordance with contract.
- 2.2.8 Arranging for joint checking (with BHEL/BHEL's Customer/Consultant) of all site construction activities Preparation of joint protocols for each & every activity and maintaining quality records for audit/inspection as per approved FQP by BHEL.
- 2.2.9 The drawings enclosed with this tender are intended to give the tenderer a general idea of the type and extent of work involved. The drawings are as such only indicative and not to be considered as the exact construction drawings.

Further this is to be noted that the drawings and the documents furnished along with this specification are the sole property of B.H.E.L. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

- 2.2.10 BHEL at its discretion may include other area works, limited to 15% of awarded contract value, although not be specially mentioned in above scope of works. All such incidental works not specified but reasonably implied and necessary for completion of the project as a whole, contractor shall execute the works as desired and as directed by BHEL engineer which is binding on the contractor. The item rates & contract conditions shall remain unchanged for such works.
- 2.2.11 Contractor shall be bound to provide Ready Mix Concrete (RMC) of different grade at their Batching Plant as per direction of BHEL Engineer as per mutually agreed rate for which justifications need to submit to BHEL.
- 2.2.12 The scope of work will also include such other related works although they may not be specifically mentioned in the above paragraph and all such incidental items not specified but reasonably imply and necessary for completion of the job as a whole all as desired and as directed by the engineer.
- 2.2.13 The detail scope of work covered above is not a comprehensive list of items of work involved. The detail scope of work may vary considerably depending on the actual construction requirements as per RFC Drawings.
- 2.2.14 The contractor shall provide adequate storage, testing and office facilities with approval from the engineer. The rate quoted by the contractor shall be deemed to include for these and no separate payment will be made towards these. On completion of work, the site shall be cleaned by the contractor of all materials, temporary sheds, debris, rubbish plants and equipment's, belonging to the contractor at no extra cost. The site and surroundings shall be handed over in neat and clean conditions. Periodical housekeeping shall be done by contractor as per the instructions of BHEL and NTPC at no extra cost. In case of any failure by the contractor, the employer will get set at risk and cost of the contractor. The construction site, office premises, roads etc. shall be maintained dust free with periodic water sprinkling or suitable methods without any extra cost to BHEL.
- 2.2.15 **Setting Up of Laboratory Works:** The contractor shall set up laboratory in the very close vicinity of the work site as required field QA & QC laboratory set up and as the directions of engineer-in-charge. The laboratory shall be equipped with latest testing equipment in sufficient number to carry out all the tests as required under a contract. The contractor should ensure that the equipment is available well in advance of starting of the work to avoid stoppage of work on this account. All the tests shall be carried out by the contractor in the presence of the Engineer's representative and a joint record of all observations and results thereof shall be maintained, and available with the Engineer. **Bidder can tie up with approved third party Lab for testing.**
- 2.2.16 In certain cases, Crushed Stone Sand/M-Sand may be added to Natural sand in order to achieve the required grading with prior approval of the Customer/Consultant and subsequent design mix report from reputed institute like IITs/NITs/Any Other Government Institutes. Crushed Stone Sand/M-sand alone may be used only with the prior approval of the BHEL Engineer/Customer/Consultant for filling and Concreting works.
- 2.2.17 The bidder shall quote his price considering only River Sand usage. If crushed stone sand/M-sand (arranged by contractor) is used in place of river sand, suitable

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

rebate (rate shall be mutually decided based on market rate with applicable BHEL overhead) of M-Sand consumed shall be applicable for all items/ works where M-Sand is used in place of River sand.

In case, BHEL at its discretion and subject to availability, may issue the crushed stone sand/M-sand free of cost for usage in place of river sand, suitable rebate (rate shall be mutually decided based on market rate with applicable BHEL overhead) of crushed stone sand/M-Sand consumed shall be applicable for all items/ works where M-Sand is used in place of River sand.

Measurement for the rebate shall be calculated based on quantity of M-Sand consumed in the particular item, not on the quantity of the particular item.

2.2.18 Labour and Staff Colony: The following are in the Bidder's scope of work for labour & staff colony:

- Development of Bidders temporary staff colony and labour colony having adequate no. of rest rooms along with toilets & fencing etc. (**enclosing drawing for ready reference**).
- All Civil and Structural work associated with drinking and service water for Bidder's labour and other personnel at the work site/colony/offices including pump houses, pipes, overhead tank, tube wells etc.
- Providing and maintaining facilities for safety, welfare, drinking water and sanitation, hygiene, biennial health check-up etc. for construction workers at their workplaces as well as at labour & staff colonies.
- The facilities for occupational safety, healthy environment, first aid, drinking water, resting place & toilets, canteen, crèche, etc. shall be provided at the workplace for construction workers by the contractor.
- Development and maintenance of above facilities for construction workers hired by the Contractor shall solely rest with the Contractor.

2.3 WORKS BY OTHERS

No work under the specification will be provided by any agency other than the contractor unless specifically mentioned elsewhere in the contract.

Following work is excluded from this scope of work: -

- 1) Borosilicate Glass blocks Supply & application
- 2) Shop Fabrication work (Excluding Flue can fabrication)

2.4 SITE VISIT

Contractor should visit project site, to acquaint himself with the conditions prevailing at site and in and around the plant premises, together with all the statutory, obligatory, mandatory requirements of various authorities before submission of the bid.

2.5 Carrying out work by BHEL

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

BHEL reserves the right to withdraw/restrict/alter the quantum of works as per clause No. 2.7 of GCC.

NOTE:

Contractor has to make him well conversant with the Customer specification. In case of ambiguity between BHEL and customer specification, customer specification shall prevail.

2.6 PREAMBLE FOR THE SCHEDULE OF QUANTITIES/BOQ.

- 2.6.1 Details of the items in this Schedule shall be read in conjunction with the Corresponding Consultants/NTPC specifications, drawings and other documents and shall have precedence over any contrary statement mentioned anywhere in this document.
- 2.6.2 The work shall be carried out as per construction drawings, specifications, the description of the items in this schedule and/or Engineer's instructions, Drawings enclosed with these documents are only indicative giving some idea of the type of work involved. The layout, sizes and details of the building, structures and foundations shown in tender drawings may vary at a large extent during actual construction. Final drawings will be issued progressively during the execution of the work.
- 2.6.3 Items of work provided in this schedule but not covered in the specifications shall be executed strictly as per instructions of the Engineer.
- 2.6.4 Unless specifically mentioned otherwise in the contract, the bidder shall quote his rates for the finished items and shall provide for the complete cost towards fuel, tools, tackle, equipment, constructional plant, temporary works, labour materials, levies , taxes , transport, layout, repairs, rectification, maintenance till handing over, supervision, shops, establishments, services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the works according to the contract.
- 2.6.5 The rate quoted shall be inclusive of cleaning the site of any vegetation's, dressing and levelling etc., required for commencement of site activities. The rates shall also be inclusive of final micro grading before handing over. No separate payment will be made towards the same.
- 2.6.6 The rate shall also be inclusive of carrying out topography survey of site to establish levels and coordinates at suitable intervals, form existing grid levels and coordinates furnished by the owner, establish bench marks, setting out the location and levels of the proposed structures, constructions and making references, pillars and other identification marks etc. No separate payment will be made towards the same.
- 2.6.7 The quantities of the various items mentioned in the schedule are approximate and may vary up to any extent or be deleted altogether. The

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

overall variation in contract value on execution shall be dealt as per GCC. Contractor has to obtain prior approval of BHEL/NTPC before procurement of bought out items/ building materials.

- 2.6.8 Engineers decision shall be final and binding on the contractors regarding clarification of items in this schedule with respect to the other section of the contract.
- 2.6.9 In case of any discrepancy between item description, relevant drawing and/or specification Clarification shall be sought at tender stage itself. Otherwise it shall be assumed that the bidder has quoted for the more stringent requirement.
- 2.6.10 Mix design (M 20, M 25, M 30, M 35/M40) for all concreting shall be carried out either at site or from a reputed institute, contractor has to ensure adding of admixture and minimizing of cement content in line with IS 456 as advised by BHEL time to time without any additional cost.
- 2.6.11 The scope shall also include setting up by the bidder a testing laboratory (one AC lab size 4.5mtrx6mtr and 1 non AC lab 4.5 mtrx4.5 mtr.) in the field to carry out all relevant tests. Detail of laboratory equipment's as per NTPC specification to be arranged by the contractor within quoted rate for conducting day to day tests. The contractor may tie up with approved/registered inspection agencies for setting up test lab at site as described above.
- 2.6.12 Installation of necessary amenities- temporary infrastructure for construction activities at Project site locations- following are the minimum amenities to be provided by the bidder without any extra cost and removal/disposal of the same in environment friendly manner after its intended use/completion of complete scope of work:
1. Labour rest sheds near work spot.
 2. Canteen facility creation.
 3. Drinking water facility.
 4. Labour Bio toilets near work spot in sufficient nos. with regular cleaning & maintenance arrangement
 5. Labour colony should have all hygienic condition, dining hall, toilets, proper sewerage system, good drinking water arrangements.

2.7 **HIERARCHY**

In case of any conflict/deviations amongst various documents, the order of precedence shall be as follows

1. Statutory Regulations
2. BOQ Items in Schedule of quantities
3. Technical specification (NTPC Talcher)/ Technical specifications (Section-C)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

4. IS standards
5. BHEL's standard specification (Section D).

The above hierarchy shall be followed strictly for technical requirements only to carry out works under the scope of this contract.

2.8 Construction Power (Provided by BHEL free of cost- for Construction purpose only):

- 2.8.1 Construction power (three phase, 415 V/ 440 V) will be provided free of cost at one point near the site at a distance of approx. 500M. Further distribution shall be arranged by the contractor at his own cost and services. Contractor shall be responsible for fulfilment of all requirements including statutory requirements in this regard. Contractor shall deploy and install required energy meter, cables, fuses, distribution boards, switchboards, bus bars, earthing arrangements, protection devices and any other installation as specified by statutory authority/act. Contractor shall also obtain approvals of appropriate authority and pay necessary fees, levies etc towards the clearance of such installations, prior to use. Sufficient power factor compensation equipments like capacitor shall be provided by contractor for reactive loads like welding machines etc. In case of any fine/penalty on account of low power factor, same shall be shared by contractor proportionately according to power consumption.
- 2.8.2 Contractor shall make necessary arrangements for onward distribution of construction power taking due care of surrounding construction activities like movement of cranes & vehicles, civil work, fabrication/construction/assembly/erection etc and safety of personnel. It may become necessary to relocate some of the installations to facilitate work by other agencies or by him.
- 2.8.3 It shall be the responsibility of the Contractor to provide, maintain the complete installation on the load side of the supply with due regard to the safety requirements at site. All cabling and installations shall comply in all respects with the appropriate statutory requirements. The installation and maintenance of this shall be done by licensed and experienced electrician.
- 2.8.4 While reasonable efforts will be made to ensure continuous electric power supply, interruptions cannot be ruled out and no claim from the Contractor shall be entertained on this account such as idle labor, extension of time etc. The Contractor shall adjust his working shift accordingly and deploy additional manpower, if necessary, so as to achieve the target.
- 2.8.5 Contractor shall be well equipped with back-up power supply arrangement like DG set and diesel operated welding machine etc to tackle situations arising due to failure of supplied power, so as to ensure continuity and completion of critical processes that are underway at the time of power failure or important activities planned in immediate future.
- 2.8.6 BHEL is not responsible for any loss or damage to the Contractor's equipment as a result of variations in voltage or frequency or interruptions in power supply.
- 2.8.7 Contractor is advised to maintain the calibrated energy measuring instruments and use their system as efficiently as possible to maintain the HT side input

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

energy meter reading and LT side outgoing energy meter reading to sub-contractors as equal.

2.8.8 The bidder will have to Procure & install General mobile illumination system during construction right from start of his work. This system will include temporary pole lighting, portable lighting towers with DG back-up, within the quoted price. The illumination should be such that minimum illumination requirement as specified by Indian standards for general illumination is maintained.

2.8.9 Contractor to arrange energy meter for office

General:

If any other voltage level (other than normally available) is required, the same shall be arranged by the contractor from power supply as above. Contractor will have to provide at his own cost necessary calibrated energy meters (tamper proof, suitably housed in a weather proof box with lock & key arrangement) at point of power supply along with calibration certificate from authorized/ accredited agency for working out the power consumption. In case of recalibration required for any reason the necessary charges including replacement by calibrated meters is to be borne by the contractor. Supply of electricity shall be governed by Indian Electricity Act and Installation Rules and other Rules and Regulation as applicable. The contractor shall ensure usage of electricity in an efficient manner and the same may be audited by BHEL time to time. In case of any major deviation from normally accepted norms is observed, BHEL will reserve the right to impose penalty as deemed fit for such cases.

Contractor to arrange calibrated energy meter (tamper proof, suitably housed in a weather proof box with lock & key arrangement) for office and this construction power at office is chargeable as per applicable tariff rates.

2.9 Construction water: (Provided by BHEL free of cost):

Construction water will be provided free of cost at one point near the plant boundary. Bidder has to make arrangement of further distribution of water at his own cost. No extra payment shall be made under this account. The agency should also construct a sump of suitable size for storage of construction water as per their site requirement for use in batching plant and construction purposes.

However, drawal of construction/potable water from bore-well shall be permitted if found suitable. Any statutory clearance required shall be obtained by the contractor.

2.10 Field Quality Assurance:

The contractor shall be responsible for day-to-day quality checks of concrete and other building materials during the progress of work. All quality records and log sheets shall be maintained as per the requirement of BHEL/BHEL'S customer and as per field quality plan approved by BHEL/NTPC.

2.11 HANDLING OF MATERIALS ISSUED BY BHEL:

2.11.1 Materials shall be issued by BHEL based on the weighment basis/linear measurements & sectional weight. However, on specific request of the contractor "as a special case to expedite the job" the consignment

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

received at BHEL stores can directly be diverted to the work site following issuance procedure of BHEL. Such direct issues shall be as per the Challan/dispatch document/LR received with the consignment. In such cases, Contractor shall do unloading of materials from trucks/lorry at their own cost.

- 2.11.2 All materials issued by BHEL shall be stacked, stored above ground level **by use of concrete or wooden sleepers. No materials shall remain on ground at any time.** All concrete or wooden sleepers required for stacking the materials shall be arranged by contractor (successful bidder of this package) at his own cost within the quoted rates. All other equipment's like winches, D-Shackles, slings of various sizes, max puller, pulley blocks, jacks, trucks, trailers etc. Required for such handling of steel from BHEL stores/storage yard etc. Shall be arranged by contractor within quoted/accepted rates.
- 2.11.3 The contractor shall take delivery of the materials from the designated place within the project premises at his own cost and store the same at his stores as per standard norms. Open land for such purposes shall be provided by BHEL on free of cost basis. Temporary barbed wire fencing of the open storage yard is to be done by the contractor and is included under the scope of his work. Contractor shall also remove grass, bushes, trees etc wherever required off the land provided to him and shall make proper continuous up keeping of the open yard /land by removing grass, bushes trees etc and same is included under the scope of his work & No extra payment shall be made to the contractor in this regard. The bidder shall make complete arrangement of necessary security personnel to safeguard all such materials in his custody. Materials issued will be used only for construction of permanent works. The contractor shall take care of material issued by BHEL and shall protect the same from theft, damage and weathering. Excessive rusting of steel in custody of agency/contractor must be avoided. **In case, due to any cause attributable to the contractor, such rusting of steel occurs rendering the same unusable, then such quantity of steel shall be recovered from the interim payment at the penal rate specified in the tender.**

2.12 Issue of Cement (Free of Cost)

- 2.12.1 Cement as received from the manufacturer/ stockiest will be issued free of cost to the contractor. Cement shall be issued normally through bulkers and emptied in cement silos of batching plant. Necessary assistance shall be provided by contractor.
- 2.12.2 Contractor to note that batching plant of capacity 30 Cum per Hour being established at site shall have minimum two cement silos of 100 MT capacities each respectively. The number of silos shall be increased based on the site requirement.
- 2.12.3 On advance request of the contractor, the cement shall be supplied in 50kg tamper proof sealed Bags for other than RCC works like masonry, flooring works etc.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

- 2.12.4 The contractor shall submit to the engineer, a statement indicating estimated quantity of cement required during a quarter, at least two months in advance of the quarter. In addition, the contractor shall also furnish the estimated requirement of cement during a month by the third week of the previous month indicating his requirement.
- 2.12.5 The theoretical weight of each bag of cement for issued purposes will be considered as 50 kg, the contractor shall be accountable for the cement issued to the contractor on this notional weight only. No claim whatsoever will be entertained because of difference between theoretical and actual weight of the bags of cement.
- 2.12.6 The empty cement bags duly accounted for against issue shall be the contractor's property and the same shall be disposed as per statutory regulation prevailing in the project.
- 2.12.7 The contractor shall satisfy himself of the quality and quantity of supplied cement at the time of taking delivery from BHEL stores. No claims whatsoever will be entertained by BHEL because of quality or quantity after the materials are taken by the contractor from BHEL stores.
- 2.12.8 Contractor will be responsible for unloading the cement as soon as the arrival of cement in the weather proof cement storage sheds having dense impervious bituminous or concrete floors which shall be kept swept clean at all times. The storage arrangements shall be fully completed and approved by the owner before any cement is delivered to site. The construction of cement storage sheds as per the requirement of BHEL, unloading of cement bags, stacking properly in the storage sheds, removal of the sheds after the completion of the work are in the scope of bidder. Though the cement is unloaded directly at the contractor storage shed, it will be deemed to be considered that the cement was issued from BHEL stores. Necessary documents are to be submitted by the contractor to the BHEL stores for having received cement.
- 2.12.9 Contractor will be responsible for sampling and testing of cement as per Indian Standard / Specification / approved quality plan in the testing laboratory established by the contractor.
- 2.12.10 Bidder is responsible for carrying out design mix as per IS 456/10262 latest revision and specification, using the cement provided by BHEL and submit the design mix proportions for the approval of BHEL / NTPC. The design / trial mix shall be carried out time to time on change of brand / type of cement supplied by BHEL and suitable adjustments on the quantity of ingredients (sand, aggregates, PCE-type high performance superplasticizer) of the concrete to get the required workability and durability, shall be the responsibility of the bidder without any extra cost to BHEL.
- 2.12.11 One month shall be limit for the maximum quantity of BHEL issued cement that would be with the contractor at any point of time when work is in progress (excluding what has already been incorporated in the works).

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

- 2.12.12 No cement will be issued on free basis for bought out item like Hume pipe, Interlocking Paver block, Fly ash brick etc. However, cement for mortar for fixing of these items if required will be issued on free basis.
- 2.12.13 The following specifications of PCE-type high performance superplasticizer shall be used for concrete works as per BOQ item.
1. High performance superplasticizer PCE-based water reducing admixture of Type-G as per ASTM C-494 of approved make FOSROC/SIKA/BASF or Equivalent having minimum water reduction capability of 30%.
 2. The performance compliance of the Super-plasticizer should be ensured based on the following test.
 - a) Marsh cone test for optimum dosage of admixture with specific brand of cement.
 - b) Slump retention test of concrete.
 - c) Water reduction capability test by doing trial mix.
 - d) Rheological properties of fresh concrete on trial mix.

2.13 ISSUE OF STEEL

- 2.13.1 The steel shall be issued to the contractor on the following basis:
- i. Structural Steel: Weighment basis (Unit – MT)
 - ii. Reinforcement Steel and Earthing Rod: Weighment basis (Unit-MT)
 - iii. MS Chequered Plate
 - ~~iv. GI Gratings: Weighment Basis (Unit – MT/As Received from manufacturer)~~
 - ~~v. MS Rails: Weighment Basis (Unit-MT)~~
- 2.13.2 All the steel (structural, reinforcement, ~~earthing rod/GI flats, GI gratings, foundation bolts, MS Rails~~) issued by BHEL shall be properly accounted for. The total quantity of steel required for the work will be calculated from the approved Bar Bending schedule, fabrication drawings, approved laps, chairs and lugs etc. The measurement for payment as well as for accounting shall be based on the sectional weights as indicated in the following IS/BS/EN specifications.
- In case any such sectional weights are not available in the above documents, the manufacturer recommendation shall be binding.**
- 2.13.3 The steel issued to the contractor shall be mainly in standard length and sections as received from the supplier. However, the contractor shall be bound to accept the steel in length as available in the project stores, no claims for extra payment because of issue of non-standard length will be entertained.
- 2.13.4 The contractor shall satisfy himself of the quality and quantity of the materials at the time of taking delivery from BHEL stores. No claims whatsoever will be entertained by BHEL because of quality or quantity after the materials are taken by the contractor from BHEL stores.
- 2.13.5 The contractor shall submit to BHEL, a statement indicating estimated quantity of **steel** required during a quarter. In addition, the contractor

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

shall also furnish the estimated requirement of steel during a month by the third week of the previous month indicating his requirement.

- 2.13.6 One month shall be limit for the maximum quantity of BHEL issue materials that would be with the contractor at any point of time when work is in progress (excluding what has already been incorporated in the works).
- 2.13.7 Bidders shall ensure that no lamination material is taken over by them from BHEL.
- 2.13.8 The contractor must note that steel required for the contractor's enabling job like store/ site office/batching plant/temporary works etc. shall be arranged by the contractor at his own cost.

2.14 **RETURN OF MATERIALS**

- 2.14.1 **Return of Cement:** Sealed cement bags remaining unused and in perfectly good condition at the time of completion or termination of the contract shall be returned promptly, (within 15 days from assessment) if BHEL/ engineer is satisfied of the physical condition of the cement. Return of such cement to the project stores / place as identified within the project area by engineer/ BHEL will not be entitled to handling and incidental charges. Surplus sealed and good conditioned cement bags will be taken back on weighment basis.

Cement that has been unloaded in silo will not be taken back by BHEL. Sweep cement will not be taken back by BHEL.

- 2.14.2 **Return of Reinforcement Steel and Structural Steel including Scrap:** All surplus steel and all wastage materials will be taken back on weighment basis. Surplus, unused and untampered steel shall be sorted section-wise and returned separately at a place directed by BHEL/Engineer within the project area. Return of such materials will not be entitled to any handling and incidental charges. All wastage / scrap (including melting scrap, wastage, and unusable scrap) shall be promptly returned to the stores and a receipt obtained for material accounting purposes. Return of such material will not be entitled to any transportation and incidental charge. Scrap for reinforcement steel and structural steel shall be returned separately.

2.15 **Scrap and Serviceable Materials:**

- 2.15.1 All structural steel of length above 2 M except M.S Plate shall be considered as **serviceable materials** provided the materials is in good and acceptable condition. Structural steel in length less than 2 M Shall be treated as scrap.
- 2.15.2 Plates having both side greater than 1 Meter OR if any side is less than 1 M but greater than 0.5 M and the total area is equal or greater than 2 sq. Meter shall be considered as **serviceable material**.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

2.15.3 All pipe measuring 2 M and above in length shall be treated serviceable materials provided they are in good and acceptable condition. Pipe in less than 2 M length shall be treated as Scrap.

2.15.4 All TMT measuring 3 M and above in length shall be treated as **serviceable material** provided they are in good acceptable condition. TMT in less than 3 M shall be treated as scrap.

2.16 **Cement, Steel Consumption and wastage:**

2.16.1 **Cement Consumption:**

The theoretical consumption of cement shall be based on the following:

- For design mix concrete as per approved design mix.
- For nominal mix concrete work, as per minimum cement as specified or as approved by engineer-in-charge.
- For item of works, where volume mix is permitted in writing by the BHEL, for masonry works, plaster other miscellaneous items, the cement consumption shall be governed by the "Statement of cement consumption" attached to the DSR (Latest) unless otherwise specified in the specifications or the drawing of contract or mutually agreed by engineer-in-charge and the contractor.
- Actual consumption = Issue – Surplus/ unused quantity of cement returned in good condition by the contractor to store.

2.16.2 **Cement Wastage:**

2.16.2.1 **Allowable wastage:** One and half percent (+1.5%) of theoretical consumption of cement.

2.16.2.2 For any material issued by BHEL to the contractor free of cost, and which is not accounted for by the contractor to BHEL, then recovery for such material shall be affected at penal rates.

Sl. no.	Cement consumption	Basis of issue & penal recovery
C-1	Theoretical consumption (without considering any wastage or loss).	Free
C-2	Actual consumption being Limited to one and half percent (+1.5%) of aforesaid theoretical consumption towards allowable wastage.	Free
C-3	Actual consumption beyond one and half percent (+1.5%) of above (C-1).	Penal rate

2.16.3 **Reinforcement Steel, MS Chequered Plate, MS earthing rod, GI gratings, Foundation bolts and MS Rails Consumption**

The theoretical consumption of various sections and/or diameter of reinforcement and ~~earthing rod steel~~ shall be based on approved construction drawing and bar bending schedule. Weight shall be calculated considering the sectional weights as per Indian standards. No extra cost shall be payable to the

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

contractor for any deviation in weights for the different procedures adopted for issue and calculation of the theoretical consumption including rolling tolerances.

2.16.3.1 Actual consumption = Issue – Surplus.

2.16.3.2 Surplus = un-tampered, unused, uncut QTY of steel **including serviceable material returned** by the contractor to BHEL store along-with relevant documents.

2.16.3.3 Wastage = Actual consumption – Theoretical consumption.

2.16.4 Reinforcement Steel, MS Chequered Plate, ~~MS earthing rod, GI gratings, Foundation bolts and MS Rails~~ Wastage

2.16.4.1 **Allowable Wastage:** (+3%) of the theoretical consumption shall be considered as allowable wastage.

Wastage and scrap shall be as per actual weightment basis.		
Sl. no.	Reinforcement steel & MS Chequered Plate	Basis of issue & penal recovery
R-1	Theoretical consumption (without considering wastage and scrap or loss)	Free
R-2	Wastage limited to plus THREE percent (+3%) of aforesaid theoretical consumption (R-1) towards allowable wastage.	Free
R-3	Wastage beyond THREE percent (+3%) of the theoretical consumption above (R-1).	Penal rate

2.16.5 Structural Steel Wastage

Allowable wastage: 4% (FOUR percent) of the theoretical consumption shall be considered. Wastage shall be considered as cut pieces and scrap material, measured as per actual weightment basis. Invisible wastage, if any, shall be considered to be included in the specified 4 % allowable wastage.

Sl no	Structural steel including SS plate	Basis of issue & penal recovery
S-1	Theoretical consumption (without considering any wastage, scrap or loss) as per specification & drg.	Free
S-2	Wastage limited to plus four percent (+4%) of the aforesaid theoretical consumption (S-1) towards allowable wastage.	Free
S-3	Wastage beyond four percent (4%) of the aforesaid theoretical consumption (S-1).	Penal rate

2.16.6 Material consumption and wastage for Solid Titanium Plates issued by BHEL for mini shell of Chimney

2.16.6.1 CONSUMPTION

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

The theoretical consumption of various size material shall be based on approved construction drawing. Weight shall be calculated as per packaging list. No extra cost shall be payable to the contractor for any deviation in weights for the different procedures adopted for issue and calculation of the theoretical consumption including rolling tolerances.

2.16.6.2 **Actual consumption = Issue – Surplus.**

2.16.6.3 **Surplus Material**

2.16.6.3.1 Cutting approved/vetted by BHEL:

2.16.6.3.1.1 Unused quantity of material returned by the contractor to BHEL store.

2.16.6.3.2 Cutting not approved/vetted by BHEL:

2.16.6.3.2.1 Untampered, unused, uncut quantity of material returned by the contractor to BHEL store.

2.16.6.4 **Wastage = Actual consumption – Theoretical consumption.**

2.16.6.4.1 Allowable Wastage: 2%

2.16.6.4.2 Wastage beyond allowable wastage limits shall be recovered with Penal rate of Rs. 2550/kg from monthly RA bills/dues to the contractor.

2.16.6.4.3 Wastage is classified as cut pieces and scrap measured as per actual weight basis. Invisible wastage (loss of materials due to gas cutting, straightening of edges etc) shall be limited to 0.5 % (zero point five percent) of theoretical consumption and shall be considered for reconciliation purposes only. But this invisible wastage shall be considered to be included in allowable wastage.

2.16.6.4.4 All wastage material shall be returned to BHEL.

2.16.7 **~~Material consumption and wastage for Borosilicate Glass issued by BHEL for Chimney~~**

~~The wastages for the Borosilicate Glass Block, Adhesive membrane, Primer which are free of cost supply by BHEL shall be to the supplier's (manufacturer of the borosilicate lining system) account. However, Chimney contractor of this present scope has to complete the installation of the borosilicate lining works in strict supervision of the manufacturer/supplier.~~

2.17 Reconciliation of Materials:

2.17.1 The contractor shall submit a reconciliation statement of cement and steel issued to the contractor with each RA Bill.

2.17.2 At the time of submission of bills, the contractor shall properly account for the material issued to him as specified herein to the satisfaction of BHEL certifying that the balance material is available in the contractor custody at site.

2.17.3 At the time of submission of bills, if it is noticed by BHEL that the wastage is high and calls recovery at the penal rate, then, BHEL will

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

proceed for recovery for the excess wastage as per penal recovery rates as specified.

- 2.17.4 The reference drawings for actual material consumption to be used for the purpose of reconciliation shall be drawings prepared by the BHEL and drawings approved by BHEL for fabrication works and such other drawings approved by BHEL. This shall also include the bar bending schedule prepared by the contractor and approved by BHEL.

2.18 General Notes:

- (a) Cement and Reinforcement Steel required for the tender scope shall be procured by BHEL and issued to contractor free of cost (As FOC Item). However, unloading, handling / storage of Cement and Reinforcement steel procured by BHEL for this tender scope, at site, inside BHEL Stores / Contractor's Stores and further transportation from Stores to work area will be in the scope of contractor. No Extra payment shall be made for this work.
- (b) BHEL reserves the right to recover from the contractor any loss arising out of damage/ theft or any other causes or during verification/stacking or at any time under the custody of the contractor.
- (c) The contractor shall take care of material issued by BHEL and shall protect the same from damage and weathering. Contractor shall construct waterproof cement store (capacity minimum 300 MT/ 6000 Bags) for storing and stacking of cement issued by BHEL free of cost.
- (d) The contractor shall in no case be entitled for any compensation on account of any delay in supply or non-supply thereof for all or any such materials. However, in case of non-availability of any specific section(s) which delays the completion of work, such cases shall be recorded separately in monthly planning format (F14) and shall be considered for time extension of contract.
- (e) Contractor will have to make his own arrangement at his own cost for procurement of any other materials except as mentioned above, as required for the works and of such quality as acceptable to BHEL.
- (f) The contractor shall maintain proper store account for all the BHEL issued materials and shall give **Three (03) copies of monthly-computerized reconciliation statement** of such account showing total receipt, consumption and balance at site to the BHEL. BHEL Engineer's certification for the reconciliation of steel shall be final. The detailed reconciliation (dia. Wise or as required) shall be done **at least once in three months (03)**
- (g) Contractor shall also carryout in complete association with BHEL, the material management functions and execution like day-to-day update of materials, issued to contractor, accounting for surplus/scrap material returned etc. These functions shall also be carried out through computerized system utilizing suitable software. Contractor shall engage

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-II: Scope of Works and Technical Specifications

experienced software personnel to associate on dedicated basis for efficient discharge of the same in time.

- (h) The contractor shall solely be responsible for the safety & security of material after it is handed over and issued to contractor by the BHEL.
- (i) BHEL issued materials, shall not be under any circumstances whatsoever, and shall be taken out of the project site unless otherwise permitted by BHEL for outside job.

2.19 Recovery of Materials (Penal Rates):

If wastage exceeds the specified limit, the recovery of excess wastage shall be made from monthly RA Bills as per following penal rates:

Sl. No.	Items	Penal Rates (Rs.)
P-1	Cement (OPC/ PPC/ PSC).	6,500 per MT
P-2	Reinforcement steel and MS earthing rod/GI flat	65,000 per MT
P-3	MS Flats, MS Plates, MS Chequered plate, beams, channel, angels etc.	75,000 per MT
P-4	Foundation bolts if supplied by BHEL	100,000 per MT

2.20 Procurement and Testing of Materials by Contractor:

Material required for the entire job (other than issued by BHEL as explained above) like sand, aggregates, windows, doors, ventilators, rolling shutter, sanitary fixtures, painting & finishing material, electrical fittings and wiring material and all other material required for the completion of entire scope have to be arranged by the contractor, except those specifically indicated as BHEL scope of supply. BHEL reserves the right to reject any material not found satisfactory. Rates quoted shall be inclusive of all such contingencies and no additional payment shall be made on this account. For this purpose, sample shall be collected at site in presence of BHEL/NTPC representative.

Bidders are requested to specifically note the following:

*Bidders are requested to have **pre-bid visit/ inspection of site** to make them fully acquainted with the site situation & nature of job. No claim shall be entertained at later date on account of non-familiarization of site conditions. Bidders may fix up their site visit in consultation with below mentioned contact person:*

Sh P K Biswas BHEL Site Office: 2x660 MW Talcher TPS Email: pkbiswas@bhel.in Ph. No: +91-8617711054, 8331015585	Sh Anand Kumar PSWR Nagpur Email: aanand@bhel.in Ph. No: +91-7387356299
--	--

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-III: Facilities in the scope of Contractor/BHEL (Scope Matrix)

Sl.No	Description	Scope		Remarks
		BHEL	Bidder	
	PART I			
3.1	<i>Establishment</i>			
3.1.1	<i>For Construction Purpose:</i>			
A	Open space for office (as per availability)	Yes		Location will be finalized after joint survey with owner
B	Open space for storage (as per availability)	Yes		Location will be finalized after joint survey with owner
C	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
D	Bidder's all office equipments, office / store / canteen consumables		Yes	
E	Canteen facilities for the bidder's staff, supervisors and engineers etc		Yes	
F	Firefighting equipments like buckets, extinguishers etc		Yes	
G	Fencing of storage area, office, canteen etc of the bidder		Yes	
3.1.2	<i>For living purpose of the bidder</i>			
A	Open space for labour colony (as per availability)		Yes	Contractor has to make his own arrangements for shelter and transportation of labours as per requirement.
B	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	Construction Plan shall be approved by BHEL
3.2.0	<i>ELECTRICITY</i>			
3.2.1	<i>Electricity for construction purposes 3 Phase 415/440 V</i>			
A	Single point source	Yes		Free of cost at one point near the site. Further distribution and Metering is in scope of bidder.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-III: Facilities in the scope of Contractor/BHEL (Scope Matrix)

Sl.No	Description	Scope		Remarks
		BHEL	Bidder	
PART I				
B	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
C	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	Electricity for office, stores, canteen etc of the bidder.			
A	Single point source	Yes		On chargeable basis.
B	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
C	Duties and deposits including statutory clearances if applicable		Yes	
3.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc			Contractor Has to make his own arrangements
A	Single point source		Yes	
B	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
C	Duties and deposits including statutory clearances if applicable		Yes	
3.3.0	WATER SUPPLY			
3.3.1	For construction purposes: (to be specified whether chargeable or free)			
A	Making the water available at single point	Yes		Free of cost at one point near the plant boundary. Further distribution and Metering is in scope of bidder
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	Water supply for bidder's office, stores, canteen etc.			

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-III: Facilities in the scope of Contractor/BHEL (Scope Matrix)

Sl.No	Description PART I	Scope		Remarks
		BHEL	Bidder	
A	Making the water available at single point		Yes	Contractor has to make his own arrangements for distribution. Single point as above for construction purpose, no separate point shall be given
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.3	Water supply for Living Purpose			Contractor has to make his own arrangement.
A	Making the water available at single point		Yes	
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.4.0	LIGHTING			
A	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
B	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3 At the construction site /area		Yes	
C	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes	
D	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
3.5.0	Communication facilities for site operations of the bidder			
A	Téléphone, fax, internet, intranet, e-mail etc		Yes	
3.6.0	Compressed air wherever required for the work		Yes	
3.7.0	Demobilization of all the above facilities		YES	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-III: Facilities in the scope of Contractor/BHEL (Scope Matrix)

Sl.No	Description PART I	Scope		Remarks
		BHEL	Bidder	
3.8.0	Transportation			
A	For site personnel of the bidder		Yes	
B	For bidder's equipments and consumables (T&P, Consumables etc)		Yes	

Sl.No	Description PART II	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.9.0	Erection Facilities			
3.9.1	Engineering works for construction:			NOT APPLICABLE
A	Providing the erection/constructions drawings for all the equipments covered under this scope	Yes		For Details Pl refer Chapter-IX-
B	Drawings for construction methods	Yes	Yes	In consultation with BHEL
C	As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site		Yes	Changes are to be marked in drawing & handover to BHEL on completion of work.
D	Shipping lists etc for reference and planning the activities			NOT APPLICABLE
E	Preparation of site erection schedules and other input requirements	Yes	Yes	In consultation with BHEL
F	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
G	Weekly erection schedules based on SI No. e		Yes	In consultation with BHEL
H	Daily erection / work plan based on SI No. g		Yes	In consultation with BHEL
I	Periodic visit of the senior official of the bidder to site to review the progress so that works are completed as per schedule. It is suggested this review by the senior official of the bidder should be done once in every two months.		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

4.1 Tools & Plants:

Nos of T&Ps to be deployed at site shall be decided w.r.t. monthly plan and review format (F-14) based on site requirement. Below given Nos are tentative for planning purposes by the bidder.

For Chimney Package:

Sl No.	Description of T&P	Quantity
1.	Automatic concrete batching plant with printing facility (30 Cum/Hr) with adequate no's of cement silos for minimum storage capacity of 300 MT)	1No
2.	Concrete Pump (30 Cum/Hr min capacity & lift 70M)	01 No.
3.	Multi stage high lift water pump (for curing) (lifting height 170 meters). One shall be working type and other shall be stand by.	2 Nos.
4.	TYRE MOUNTED CRANE 40/75 MT (For fabrication and erection of Flue cans)	1 Nos./as per requirement
5.	SLIP FORM SHUTTERING SYSTEM & necessary spare parts	1 SET
6.	02 Sets of Strand Jacks of required capacity (includes 2 no's standby Jacks) with 02 no's power Pack including strand Rope of adequate thickness & length	As per Site requirement (To carryout erection of both flue cans parallel)
7.	Cross Rail System	As per requirement
8.	Concrete Transit Mixer (5/6 cum)	3 No's with 01 no standby
9.	Concrete Boom placer	As per requirement.
10.	SLUDGE / SLURRY PUMP (DIESEL / ELEC)	As per requirement.
11.	Power winch – 3 T - for structural erection	2 nos
12.	Power winch – 5 T - for structural erection.	1no
13.	Power winch – 10 T for structural erection	- 2 nos
14.	Electrical Winch (of any other required capacity)	As per requirement
15.	Vibrators(electrical/diesel)	10 Nos
16.	Air Compressor/Air blower	02 No.
17.	Concrete breaker (HILTI/STANLEY or equivalent)	02 No.
18.	Power Trowel	As per requirement
19.	Groove Cutting Machine	As per requirement
20.	Welding Machine (Sub-Merged Arc & MIG Machine)	As per requirement
21.	01 No. Motorized MS Plate bending machine	01 no.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

	(Suitable for bending standard width of MS plate)	
22.	Motorized MS Angle bending machine	01 no.
23.	Hole Drilling machine	As per requirement
24.	Self-priming Dewatering pump of various capacity (Diesel/Electric) From 2 HP to 7.5 HP	As per requirement
25.	Curing / dewatering pump – 1.5 / 2 HP	04 No's
26.	Hydraulic Excavator /Poclain	As per requirement.
27.	JCB	As per requirement.
28.	- Ply Shuttering board with adequate supporting structure – (Old steel shuttering plates will not be allowed). - Steel shuttering (fare face)	Lot (As per requirement)
29.	Farana crane (Required Capacity) *Note- Hydra is not allowed at project site	As per requirement.
30.	Trailer (20MT Capacity)	As per requirement.
31.	Tractor mounted grader/ loader	As per requirement.
32.	Scaffolding Pipes, Clamps / Swivel Couplers (One/Two Way), Props, Jacks, Screw Heads, MS Pipes, Wooden Battens, Planks, Bullies, H Frames, Tie Rods with Nuts, Adjustable Achro Span (Considering Individual Areas)	Scaffolding Pipes – Min. 2000 Nos. Other than Scaffolding Pipes – As per requirement.
33.	Dumper	As per requirement
34.	Reinforcement bending machine	02 No's
35.	Reinforcement cutting machine	04 No's
36.	MS scaffolding pipe with matching Couplers	As per requirement
37.	Plate compactor	As per requirement
38.	Earth Compactor	As per requirement
39.	Vacuum Dewatering machine	As per requirement
40.	Total Station	01 No
41.	Auto level & staff	02 No
42.	Vibro roller of suitable capacity	To be mobilized as per site requirement
43.	Water Tanker with sprinkler	As per requirement
44.	All equipments for area lighting like LED bulbs and Portable light Towers etc.	As per requirement
45.	All Equipment required to install temporary MS Casing of 12 m or required length like vibro hammer & suitable capacity crane etc.	As per requirement
46.	DG Set of sufficient capacity	As per requirement
47.	COMPUTER with printing/photocopy & CD writing facility	As per requirement

4.1 MEASURING AND MONITORING DEVICES (MMD):

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

AS PER REQUIREMENT TO BE FINALIZED AT SITE.

4.2 Supervisors and Computer for exclusive use of BHEL:

- (a) The successful bidder(s) will have to provide two supervisors (Diploma in Civil Engineering) acceptable to BHEL Site with sufficient computer knowledge (knowledge of MS office) to whom works will be assigned in consultation and acceptance of BHEL for original contract period. In case, the contractor fails to provide supervisors from 3rd month from LOI date till completion of site works or as decided by BHEL, deduction of Rs. 25,000/- per supervisor per month.
- (b) The bidder will have to **provide Two (02) Nos. of PCs** (multimedia PC work station Core i3/i5,1 GHZ or above, 320 GB HDD, 4 GB RAM, 100 MBPS LAN card of DELL/HP/ASUS or equivalent make with window 10 O/S with required accessories like mouse, keyboard, UPS and required software like MS Office 2010 Professional, AutoCAD 2011, ADOBE PDF CREATOR (version 8.0) with one laser jet printer compatible for A4 and A3 size printing (ink/ cartridge for which to be supplied as and when required, (the consumption may be assumed as 1 cartridge per month) with power backup at places, as per instruction of BHEL.
- (c) These computers/ printers along with two supervisors shall remain contractor's property/ownership for all legal/technical purposes. However, contractor will be allowed to take out the same after completion of the site works. However, the computer/printer along with technical supervisor shall remain at BHEL offices.
- (d) This facility has to be provided from 3rd month from LOI date till completion of site works or as decided by BHEL. If contractor fails to provide computer/ printer as per requirement, for a continuous period of fifteen days or more, BHEL shall have the right to purchase it at risk and cost of bidder.
- (e) In the event of the contract period getting extended beyond the stipulated time for reasons not attributable to the bidder, the bidder will be reimbursed at Rs. 50,000/- per month for two computers with printer facility **including two supervisors**, if the services of computer and printer are being used by BHEL.

NOTE:

This above list is only indicative and neither exhaustive nor limiting. Quantities indicated above are only the minimum required. Contractor shall deploy all necessary T&P to meet the schedules & as prescribed by BHEL engineer and required for completion of work. In the event of non mobilisation of any T&P by the successful bidder and as a result progress of work suffered, BHEL reserves the right to deduct suitable amount from the dues of the bidder, with assigning reasons thereof.

Special Note:

- 1 Heavy equipment will be tracked with real-time position location for fleet management. Deployment vs planned reports shall be generated. Equipment Condition monitoring data like Service Meter Reading, Operation maps, Loading,

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

fuel levels, operating information, idle time etc. shall be captured. This data shall be captured through Integrated Online Project Monitoring system. All T&P equipment deployed by contractor will be covered/ monitored through this system. Minimum 5 signals per equipment should be made available to provide the input to Integrated Online Project Monitoring system. Necessary software/ hardware for aforesaid system shall be provided by BHEL.

- 2 All manpower hired/deployed by Contractor for this project shall be monitored through Integrated Online Project Monitoring system by BLE beacons & LoRa backhaul. Every personnel entering in to NTPC site premises for carry out any work shall be tracked. [Separate tagging for visitors]. Geo-fencing /BLE beacon based zoning of the erection area shall be done to track workforce deployment and safety purposes. Work force monitoring Dash board (planned vs actual deployment) shall be made available. BLE beacons & LoRa backhaul shall be provided by BHEL on chargeable basis to contractor. BHEL will provide Tags free of cost for maximum 300 workers, additional tags as required shall be provided by BHEL on chargeable basis @ Rs. 1000/- per tag. In case of damage or missing of issued worker tag, Rs. 1000/- per tag will be charged for issuing new worker tag.
- 1 Medical/First aid center/medicine purchased for emergency/Doctor purpose along with ambulance services with fuel and operator (round the clock) shall be arranged by BHEL for handling medical emergencies. Cost against these facilities shall be distributed/shared among the vendors working in Talcher Project site proportionately based on contract value.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter- V : T&Ps and MMEs to be Provided by BHEL

BHEL WILL NOT PROVIDE ANY T&P's FOR THIS WORK.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VI: Time Schedule

6.0 **Time Schedule and Mobilization:**

6.1 **Initial Mobilization and Time Schedule:**

The bidder shall arrange to mobilize and start the work within 15 days from the date of issue of Letter of Intent unless BHEL intimates in writing to defer the site mobilization plan.

The actual date of start of work will be certified by BHEL site in-charge/Construction Manager after adequate mobilization of manpower, T&P by the contractor. This certificate date will be deemed as start of work at site for purpose of the contract time schedule.

The entire work of construction up to handing over of Scope civil & architectural works shall be completed within a period of 24 Months (Twenty-Four Months) from the date of start of work.

6.2 **Contract Period and Schedule of Completion:**

The entire work under the scope of this contract shall be carried out in such a manner that the following listed major milestones are achieved as per completion schedule given against each activity & fronts released for erection by other agency:

Sl No.	Civil work of following Activity	Period from DOS
1	RCC Raft Foundation Completion along with Slip-form Assembly and Erection Completion	5 th Month
2	RCC Shell completion (150m Approx.), Fabrication of FLUE CANS (25% Approx.)	10 th Month
3	Balance RCC shell completion and fabrication of FLUE CANS (75% Approx.), erection of all Floor beams and Staircase with Handrails:	14 th Month
4	Erection completion of FLUE CANS for Unit#1	19 th Month
5	Erection completion of FLUE CANS for Unit#2	20 th Month
6	Supply & erection of Elevator	22 nd Month
7	Aviation Lighting & other Electrical systems completion	23 rd Month
6	Completion of all Balance Misc. Works viz. Final Painting, Flooring, Paving, Drains etc. & Handing over to BHEL/NTPC	24 th Month

6.3 **PROVISION OF PENALTY IN CASE OF SLIPPAGE OF INTERMEDIATE MILESTONES:**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VI: Time Schedule

In case of slippage of Two Major Intermediate Milestones, mentioned as M1, M2, hereunder, Delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones in reference to F-14.

Milestones	Civil work of following Activity	Period from DOS
M1	RCC Raft Foundation Completion along with Slip-form Assembly and Erection Completion	5 th Month
M2	Erection completion of FLUE CANS for Unit#1	19 th Month

Note: Refer clause no. 7 of NIT “Annexure-12-Important Information” regarding modalities against provision of penalty in case of slippage of Intermediate Milestones.

Notes:

- Common activities like Plant roads, drains, fencing, paving and other misc. works etc. shall be completed in Phase wise manner / Instruction of Engineer within the Contractual time.
- Contractor shall note that individual milestones as above shall be achieved as per schedule furnished above.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VII: Terms of Payment

7.0 Terms of Payment:

- 7.1 **Progressive Payment/ Final Payment:** The payments for works under the scope of this contract shall be as per clause no 2.6; 2.22; 2.23 of General Conditions of Contract and Volume-IB, Chapter-X of SCC. However, Clause No. 10.5 on RA Bill Payments, in Volume-IB, Chapter-X of SCC, is revised as under:

The contractor will be eligible for payment of RA Bills after 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc. and other dues in the meanwhile.

All documents like HR Clearance, Quality and Safety Compliances, etc. required for processing the RA Bills should be submitted along with RA Bills.

7.2 **Labour colony to be developed – 01 set as per attached drawing**

Scope: Construction and maintenance of labour colony having adequate no. of rest rooms along with toilets & fencing etc. as per drawing attached and TCC including associated civil and structural works on built, own and operate basis. Proposal for construction of these hutment is to be got approved from BHEL before organising material and execution.

One-time payment of Rs. 50,00,000/- (Rs. Fifty Lakhs Only) for 01 Set towards construction/development of labour colony as above shall be paid by BHEL as per following payment terms:

- i) On receipt of material for each set of labour colony at site - 50%
- ii) On completion of installation of labour colony for each set - 20%
- iii) Handing over for accommodation of labour with all amenities for each set - 30%

However, the cost paid to the contractor shall be recovered as per following methodology (a) or (b) whichever is earlier:

- a) 10% of monthly running bills progressively from each month starting from handing over for accommodation to labour till recovery of full amount.

or

- b) Progressively on monthly pro-rata basis till completion of original contract period.

Land for labour colony shall be provided by BHEL free of cost as per availability outside project area within 5Km, Necessary levelling/dressing of land shall be done by the contractor. All arrangement for electricity and drinking/service water to be arranged by the contractor within his quoted price.

The labour colony shall be handed over for accommodation with all amenities within **Three (03) Months** from date of start.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VII: Terms of Payment

Date of start shall be decided jointly by BHEL/NTPC and Contractor based on availability of Land, Fronts, etc.

If the contractor fails to maintain the required progress of work which results in delay in the completion of the labour colony as per above completion period, BHEL shall have the right to impose Penalty at the rate of Rs. 75,000/- per weeks of delay or part thereof beyond **Three (03) Months** of completion period for a maximum delay of **Three (03) Months**.

In case, contractor fails to complete the labour colony as above mentioned period, BHEL reserves the right to execute the work at risk and cost of contractor.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VIII : Taxes & Duties

8.0 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 1st 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

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VIII : Taxes & Duties

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.
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

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VIII : Taxes & Duties

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 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 agency, 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 1st 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**
 - i. Buyer 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

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VIII : Taxes & Duties

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.

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

ANNEXURE-2

BOCW Act & Cess Act

Bidder may please note that the sub-contractor/bidder of BHEL engaging building or construction worker in connection with building or other construction work, are required to follow the procedures enumerated below:

1. It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder.
2. It shall be sole responsibility of the contractor engaging Building Workers in connection with the building or other construction works in the capacity of employer to apply and obtain registration certificate specifying the scope of work under the relevant provisions of the Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 from the appropriate Authorities.
3. It shall be responsibility of the contractor to furnish a copy of such Registration Certificate within a period of one month from the date of commencement of Work.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VIII : Taxes & Duties

4. It is responsibility of the contractor to register under the Building and other Construction Workers' Welfare Cess Act, 1996 and deposit the required Cess for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 at such rate as the Central Government may , by notification in the Official Gazette, from time to time specify. However, before registering and deposit of Cess under the Building and other Construction Workers' Welfare Cess Act, 1996, the contractor will seek written prior approval from the Construction Manager.
5. It shall be sole responsibility of the contractor as employer to get registered every Building Worker, who is between the age of 18 to 60 years of age and who has been engaged in any building or other construction work for not less than ninety days during the preceding twelve months as Beneficiary under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996.
6. It shall be sole responsibility of the contractor as employer to maintain all the registers, records, notices and submit returns under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder.
7. It shall be sole responsibility of the contractor as employer to provide notice of poisoning or occupation notifiable diseases, to report of accident and dangerous occurrences to the concerned authorities under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the rules made thereunder and to make payment of all statutory payments & compensation under the Employees' Compensation Act, 1923.
8. It shall be the responsibility of the sub-contractor as employer to make payment/deposit of applicable cess amount on the extent of work involving building or construction workers engaged by the sub-contractor within a period of one month from the receipt of payment. It shall also be responsibility of the Contractor to furnish BHEL on monthly basis, Receipts/ Challans towards Deposit of the Cess under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder along with following statistics :
 - (i) Number of Building Workers employed during preceding one month.
 - (ii) Number of Building workers registered as Beneficiary during preceding one month.
 - (iii) Disbursement of Wages made to the Building Workers for preceding wage month.
 - (iv) Remittance of Contribution of Beneficiaries made during the preceding month
9. BHEL shall reimburse the contractor the Cess amount deposited for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder. However, BHEL shall not reimburse the Fee

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VIII : Taxes & Duties

paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted.

10. It shall be responsibility of the Building Worker engaged by the Contractor and registered as a beneficiary under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 to contribute to the Fund at such rate per mensem as may be specified by the State government by notification in the Official Gazette. Where such beneficiary authorizes the contractor being his employer to deduct his contribution from his monthly wages and to remit the same, the contractor shall remit such contribution to the Building and other construction Workers' Welfare Board in such manner as may be directed by the Board , within the fifteen days from such deduction.
11. Bidders may please note that though the quoted price is exclusive of BOCW (which will be reimbursed by BHEL as per sub-clause 9 above) , however, If at any point of time during the contract period, non-compliance of the provisions of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder is observed, BHEL reserves the right to deduct the applicable cess (1%) on the contract value and penalty (if any, imposed by Cess Authorities) from the payables on account of non-compliance.
12. The contractor shall declare to undertake any liability or claim arising out of employment of building workers and shall indemnify BHEL from all consequences / liabilities / penalties in case of non-compliance of the provisions of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter –IX : Technical Specifications and Plot Plan

9.0 Following Technical Specifications shall be integral parts of this tender as Vol-I-E:

- **SPECIFIC TECHNICAL REQUIREMENT- STACK ELEVATORS**
- **SPECIFIC TECHNICAL REQUIREMENTS of RCC Chimney- Section-C**
- **GENERAL TECHNICAL REQUIREMENTS of RCC Chimney- Section-D**
- **Technical Specification for Electrical portion**
- **Approved Vendor List Civil**
- **Plot Plan (Drg No:PE-DG-497-100-M001)**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER X – Appendix

Tentative Manpower Requirements:

- (a) **Project manager – 01** with adequate experience of minimum 10 Years in Chimney Civil work having exposure to construction of wet stack.
- (b) Experienced Civil Engineers – 02 heads
- (c) Experienced Foreman / Supervisors – 6 heads
- (d) Planning & Billing Engineer – 01 heads
- (e) Stores, Gate Pass – 01 heads
- (f) Accounts & Administration- 01 head
- (g) Quality Control Engineer/Chemist – 01 head
- (h) Safety Engineer (officer) – 01 no's head per Shift
- (i) Surveyor – 02 heads capable to handle total station
- (j) Operator, Licensed Electrician, Mechanic - As per requirement
- (k) Experienced Carpenters & Helpers – lot for similar nature of work
- (l) Experienced Bar Benders & Helpers – lot for similar nature of work.
- (m) Security Guards (Round The Clock) – As per requirement

10.0 Deputation of above man-power shall be jointly decided at site in line with construction schedule.

10.1 Engineer/ supervisor for other functions like store & purchase, material management, planning, finance, administration & liaison etc are to be provided as per site requirement and not considered above.

10.2 BHEL reserves the right to reject or approve the list of personnel proposed by the contractor. The persons whose bio-data have been approved by BHEL will have to be posted at site and deviation in this regard will not be permitted unless specific & reasonable justification is made.

10.3 In addition to above, a well experienced qualified engineer to be designated, as 'Project Co-coordinator', shall be deployed by the contractor. Such engineer shall have adequate exposure on the job and shall remain fully involved in all planning activities, guidance etc. to contractor's own team during the complete execution period of contract.

The contractor should also submit the fitness/calibration certificate for T&Ps regularly and renew as per applicable IS standards and statutory requirements. The tools & tackles shall not be removed from site without written permission of BHEL.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER -XI – BILL OF QUANTITIES AND % WEIGHTAGE OF
INDIVIDUAL ITEMS

This Chapter consists of Part A & Part B of Volume II “Price bid”:

<u>CONTENTS</u>	
Description	Remarks
PART A: Instructions to the Bidders	Instructions
PART B: % weightage for amount of individual items of Schedule of quantity	Refer Latest Chapter-XI of Vol-IA TCC (BILL OF QUANTITIES AND % WEIGHTAGE OF INDIVIDUAL ITEMS)
PART C: Total Lump Sum Price for entire scope of Work	This part is implanted in the E-Procurement portal entitled as “ Part-C of Vol-II Price Bid ”.

Part A: Instructions to the Bidders

- Bidders shall quote Total Lump-sum Price for the entire scope of work at the place implanted in the E-Procurement Portal titled as “Part-C of Vol-II Price Bid”. Price mentioned elsewhere in the offer of the bidder shall be treated as Null and Void.
- BHEL has fixed the % weightages as in “Part-B” for the amount of individual items of Schedule of Quantity w.r.t. the total price of Price Bid Vol-II.
- Based on the pre-fixed % weightages, amount of individual items shall be derived by BHEL. This amount shall not be rounded off.
- Based on the quantities of individual item and the amount arrived in Sl No 3 above, item rate of individual items shall be derived by BHEL. This item rate shall be rounded off up to two decimal places and shall be used to calculate the total amount of an item.
- For the convenience of bidders, BHEL has issued an excel sheet with all requisite formulae as detailed above. *However this excel sheet shall not form part of contract document. Further, this sheet should not be uploaded at the e-Portal.*
- Bidders to note that this is an ‘**Item rate contract**’. Payment shall be made for the actual quantities of work executed at the Unit rate arrived at as per serial no 4 above.

PART B: % weightage for amount of individual items of Schedule of quantity w.r.t. the total price (as quoted by the bidder in “Part C of Vol-II-Price Bid”)

Note: This Chapter-XI is uploaded separately as file titled ‘**Chapter XI-BOQ and Percentage Weightage**’-2660.