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NOTICE INVITING TENDER

(Document No PS:MSX:NIT)

TENDER NO.: BHEL/NR/SCT/KHURJA/MM/1184

NAME OF WORK: WORK OF PART-A:- RECEIPT OF MATERIALS, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION AND HANDING OVER OF PLANT AND OTHER MATERIALS OF TG, ELECTRICAL, ASSOCIATED AUXILIARIES, CHEMICALS, CEMENT, SHOP FABRICATED STRUCTURAL STEEL & REINFORCEMENT STEEL AND PROVIDING SERVICES FOR MATERIALS MANAGEMENT AND PART-B:-PROVIDING SERVICES OF PIT-LESS WEIGH-BRIDGE OF 100 MT CAPACITY OF SIZE 20 M X 3.5 M ON BUILD, OWN AND OPERATE BASIS FOR 2 X 660 MW KHURJA STPP,KHURJA,UP.

Bharat Heavy Electricals Limited



Ref: BHEL/NR/SCT/KHURJA/MM/1184

Date: 17/01/2020

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NOTICE INVITING E-TENDER (NIT)

BIDDER TO SUBMIT OFFERS ON PORTAL

<https://bhel.abcprocure.com>

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To

Dear Sir/Madam

Sub : NOTICE INVITING E-TENDER

Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting PRE QUALIFICATION CRITERIA as mentioned in Annexure-I) 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. Salient Features of NIT

SL NO	ISSUE	DESCRIPTION
i	TENDER NUMBER	BHEL/NR/SCT/KHURJA/MM/1184
ii	BROAD SCOPE OF JOB	“WORK OF PART-A:- RECEIPT OF MATERIALS, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION AND HANDING OVER OF PLANT AND OTHER MATERIALS OF TG, ELECTRICAL, ASSOCIATED AUXILIARIES, CHEMICALS, CEMENT, SHOP FABRICATED STRUCTURAL STEEL & REINFORCEMENT STEEL AND PROVIDING SERVICES FOR MATERIALS MANAGEMENT AND PART-B:-PROVIDING SERVICES OF PIT-LESS WEIGH-BRIDGE OF 100 MT CAPACITY OF SIZE 20 M X 3.5 M ON BUILD, OWN AND OPERATE BASIS FOR 2 X 660 MW KHURJA STPP, KHURJA, U.P.”
iii	DETAILS OF TENDER DOCUMENT	
a	Volume-IA	<i>Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc</i> Applicable
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> Applicable
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> Applicable
d	Volume-ID	<i>Forms and Procedures</i> Applicable
e	Volume-IE	<i>NTPC Safety Rules</i> Applicable
f	Volume-II	<i>Price Schedule (Absolute value).</i> Applicable
iv	ISSUE OF TENDER DOCUMENTS	From BHEL website (www.bhel.com) and <u>https://bhel.abcprocure.com</u> Tender documents will be available at website till due date of submission Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	Date : 27/01/2020 , Time : 1500 HRS Place : on <u>https://bhel.abcprocure.com</u> Applicable
vi	OPENING OF TENDER	At due date / time Date : 27/01/2020, Time : 1530 HRS Applicable

		<p>Notes:</p> <p>(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.</p> <p>(2) Bidder may depute representative to witness the opening of tender. However it being an e-tender it shall be opened online</p>	
vii	EMD AMOUNT	Rs. 6,72,000/-	Applicable
viii	COST OF TENDER	Rs. 2,000/-	Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	<p>Five days before bid submission due date.</p> <p>Along with soft version also, addressing to contact address given below</p> <p>1) Name: G.V. RAJA SEKHAR Designation: MANAGER Deptt: SCT Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301 Phone: (Landline) 0120-2416232 Email : gvr@bhel.in</p> <p>2) Name: R M CHANDRA Designation: DY, MANAGER Deptt: SCT Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301 Phone: (Landline) 0120 - 2416440 Email : rmchandra@bhel.in</p>	Applicable
x	SCHEDULE OF Pre Bid Discussion (PBD)		Not applicable.
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)		Not Applicable
xii	LATEST UPDATES	<p>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 Corrigendums) & portal https://bhel.abcpocure.com and not in the newspapers. Bidders to keep themselves updated with all such information</p>	
xiii	TENDER SUBMISSION	on portal https://bhel.abcpocure.com	

2. 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, **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. Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Noida issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day; and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Noida, Sundays and second/ last Saturdays.

As this tender is an E-Tender and no paper bids will be accepted therefore the scanned copy of the Demand Draft or the Cash Receipt issued by BHEL PSNR should be uploaded in the E procurement portal. Hard Copy of the demand draft should reach BHEL PSNR HQ Noida before the due date and time of bid submission. BHEL shall not be responsible for postal or any other delays in this regard.

4. Unless specifically stated otherwise, tender must be accompanied by the prescribed amount of Earnest Money Deposit (EMD) in the manner described in Clause no. 1.9 of General Conditions of Contract.

'One Time EMD' will not be considered for this tender. All the bidders who have 'One Time EMD' with BHEL and want to participate in this tender, would also submit the requisite amount of EMD as mentioned in Clause No. 1, Salient Features of NIT, Sl. No. (vii) above.

However, the One Time EMD can be adjusted against the EMD applicable against this tender on specific request of bidder.

For Electronic Fund Transfer the details are as below:-

a) **Name of the Beneficiary** :- Bharat Heavy Electricals Limited

b) **Bank Particulars**

i).	Bank Name :-	STATE BANK OF INDIA
ii).	Bank Telephone No.(with STD code):-	011-23475566
iii).	Branch Address:-	CAG II BRANCH, NEW DELHI 4 th & 5 th FLOOR, REDFORT CAPITAL, PARASNATH TOWERS, BHAI VEER SINGH MARG, GOLE MARKET, NEW DELHI-110001
iv).	Bank Fax No. (with STD code) :-	011-23475566
v).	Branch Code :-	17313
vi).	9 Digit MICR Code of the Bank Branch :-	110002562
vii).	Bank Account Number :-	10813608647
viii).	Bank Account Type :-	CASH CREDIT
ix).	11 Digit IFSC Code of Beneficiary Branch:-	SBIN0017313

5. **Procedure for Submission of Tenders**: This is an E-tender floated online through our E-Procurement Site <https://bhel.abcprocure.com>. The bidder should respond by submitting their offer online only in our e-Procurement platform at <https://bhel.abcprocure.com>. Offers are invited in two-parts only.

Documents Comprising the e-Tender

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

a. Technical Tender (UN priced Tender)

All Technical details (eg. 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):

- Tender Cost furnished in accordance with NIT Clause 3.0.
- 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 would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.
- iv. 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.
- v. 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.
- vi. In case offer is sent through hard copy/fax/telex/cable/electronically in place of e-tender, same shall not be considered.

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:-

M/s AbcProcure, Ahmedabad

A-202/208, Wall Street-II, Opp. Orient Club, Nr. Gujarat College,

Ellis Bridge, Ahmedabad-380006

The contact details of the service provider are given below:

Name	Contact Nos.	e-mail ID	Role	Location
Swapnil Hamilton	+91 79 40270549	swapnil.h@eptl.in	Support Executive	HO – Ahmedabad
Hardik Oza	+91 79 40270560	Hardik.oza@eptl.in	Support Executive	HO – Ahmedabad
Ankur Bhatt	+91 79 40270590	ankur.bhatt@eptl.in	Support Executive	HO – Ahmedabad
Prashant Rajyaguru	+91 79 40270545 / 9016859416	prashant@eptl.in	Ast. Manager – Implementation & Support	HO – Ahmedabad
Dharam Rathod	+91 79 40270596 / 9374519754	dharam@eptl.in	Manager – Implementation & Support	HO – Ahmedabad
Pradip Parmar	+91 79 40270532 / 9328657215	pradip@eptl.in	Sr Manager – Implementation & Support	HO – Ahmedabad
Devang Patel	+91 79 40270576 / 99983 05442	devang@eptl.in	Sr Manager – Implementation & Support	HO – Ahmedabad

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.

1. The contact details of the DSC Certifying Authority as given below

1	GNFC	www.ncodesolutions.com
2	e-Mudhra	http://www.e-Mudhra.com
3	Safescrypt	www.safescrypt.com

Vendors are also requested to go through seller manual available on <https://bhel.abcpurchase.com>.

6. **Not Used**

7. 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. 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. **Assessment of Capacity of Bidders:**

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 -1))

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

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

- a) $P_1, P_2, P_3, P_4, P_5, \dots P_N$ etc. be the packages (under execution/ executed during the 'Period of Assessment' in all Regions of BHEL) **SIMILAR** to the packages covered under the tendered

scope, excepting packages not commenced. Total number of similar packages for all Regions = P_T (i.e. $P_T = P_1 + P_2 + P_3 + P_4 + \dots P_N$)

- b) Number of Months ' T_1 ' for which 'Monthly Performance Evaluation' as per relevant formats, should have been done in the 'Period of Assessment' for the corresponding similar package P_1 . Similarly T_2 for package P_2 , T_3 for package P_3 , etc. for the tendered scope. Now calculate cumulative total months ' T_T ' for total similar Packages ' P_T ' for all Regions (i.e. $T_T = T_1 + T_2 + T_3 + T_4 + \dots T_N$)
- c) Sum ' S_1 ' of 'Monthly Performance Evaluation' Scores ($S_{1-1}, S_{1-2}, S_{1-3}, S_{1-4}, S_{1-5} \dots S_{1-T_1}$) for similar package P_1 , for the 'period of assessment' ' T_1 ' (i.e. $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots S_{1-T_1}$). Similarly, S_2 for package P_2 for period T_2 , S_3 for package P_3 for period T_3 etc. for the tendered scope for all Regions. Now 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)
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-T_1}	$S_{2-1},$ $S_{2-2},$ $S_{2-3},$ $S_{2-4},$... S_{2-T_2}	$S_{3-1},$ $S_{3-2},$ $S_{3-3},$ $S_{3-4},$... S_{3-T_3}	$S_{4-1},$ $S_{4-2},$ $S_{4-3},$ $S_{4-4},$... S_{4-T_4}	$S_{5-1},$ $S_{5-2},$ $S_{5-3},$ $S_{5-4},$... S_{5-T_5}	$S_{N-1},$ $S_{N-2},$ $S_{N-3},$ $S_{N-4},$... S_{N-T_N}	-----

Sl. No.	Item Description	Details for all Regions							Total
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
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 \leq 65	0.4
3	> 65 and \leq 70	0.35
4	> 70 and \leq 75	0.25
5	> 75 and < 80	0.2
6	\geq 80	NA

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:

- 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
- For $R_{BHEL} = 60$, $P_{Max} = '1'$
- 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)

Note: For the transition period of 1 year (i.e. for all the NITs floated between 11th May 2019 to 10th May 2020), in addition to above, 'Assessment of Capacity of Bidder' shall also be calculated considering 'performance scores' till 36 months as per Sl. no II ii).

Higher of the results obtained out of both shall be considered for 'Assessment of Capacity of Bidder'.

IV. Explanatory note:

- 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 ii). Pile and Pile Caps iii). Civil Works including foundations iv). Structural Steel Fabrication & Erection v). Chimney vi). Cooling Tower vii). Others (Civil)	i). Electrical ii). C&I iii). Others (Elect. and C&I)	i). Boiler & Aux (All types including CW Piping if applicable) ii). Power Cycle Piping/Critical Piping iii). ESP 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). 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/LOA from BHEL.

The "FIRST TIMER" tag shall remain till completion of all the contracts against which vendors 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:

- All the bidders having Overall Performance Rating (R_{BHEL}) ≥ 60 shall be considered qualified against criteria of 'Assessment of Capacity of Bidders'.
- 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'.
- 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'.

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:
- Up to execution of 90% of anticipated Contract Value in case of Civil, MM, Structural and Turbo Blower Packages
 - Up to Steam Blowing in case of Boiler/ESP/Piping Packages
 - 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 25th of Evaluation Month or 3 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 -
- Short hold:** Evaluation shall not be applicable for this period, however Loading will be considered.
 - 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 in CL 9 above is applicable to prime bidder and Consortium partner (or Technical tie up partner) for their respective scope of work.

- 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.
- For any clarification on the tender document, the bidder may seek the same over e-procurement portal as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 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. 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. Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
15. **Not Applicable**
- 15a **Not Applicable**
16. 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. In case BHEL decides on a 'Public Opening', the date & time of opening of the PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorised 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. 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.
 - (a) BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.
 - (b) Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).
 - (c) The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. **The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.**
 - (d) If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).
 - (e) If reverse auction process is unsuccessful, sealed envelope price bids of all the techno-commercially

qualified bidders shall be opened and the tender shall be processed accordingly. However, the envelope sealed bid(s) of techno-commercially acceptable bidder(s) who had agreed to participate in the RA and had failed to submit the online sealed bid shall not be opened.

20. On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
21. 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. The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
23. **Consortium Bidding (or Technical Tie up): Not Applicable**
24. The bidder shall 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. The bidder may have to produce original document for verification if so decided by BHEL.
26. It may please be noted that guidelines/rules in respect of Suspension of Business dealings', 'Vendor evaluation format', 'Quality, Safety & HSE guidelines', milestone/ completion certificate, etc may undergo change from time to time and the latest one shall be followed. The abridge version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' is available on www.bhel.com on "supplier registration page".
- 27.0 The offers of the bidders who are on the banned/ hold list as 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
- 27.1 Integrity commitment, performance of the contract and punitive action thereof:
 - 27.1.1 **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.
 - 27.1.2 **Commitment by Bidder/ Supplier/ Contractor:**
 - (i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
 - (ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.
 - (iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the prices or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India,

then, action may be taken against such bidder/ supplier/ contractor as per extent guidelines of the company available on www.bhel.com and / or under applicable legal provisions.

28.0 Not Applicable

29.0 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.

30.0 PREFERENCE TO MAKE IN INDIA:

For this procurement, Public Procurement (*Preference to Make in India*), Order 2017 dated 15.06.2017 & 28.05.2018 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract/ PO/ WO against this NIT.

In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and/ or local content in respect of this procurement, same shall be applicable.

31.0 Order of Precedence

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

- 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

for BHARAT HEAVY ELECTRICALS LTD

(SCT)

Enclosure:-

- (i) Annexure-1: Pre Qualifying criteria.
- (ii) Annexure-2: Check List.
- (iii) Annexure-3: Authorization of representative who will participate in the online Reverse Auction Process
- (iv) Other Tender documents as per this NIT.

ANNEXURE - 1**PRE QUALIFYING REQUIREMENTS**

JOB	WORK OF PART-A:- RECEIPT OF MATERIALS, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION AND HANDING OVER OF PLANT AND OTHER MATERIALS OF TG, ELECTRICAL, ASSOCIATED AUXILIARIES, CHEMICALS, CEMENT, SHOP FABRICATED STRUCTURAL STEEL & REINFORCEMENT STEEL AND PROVIDING SERVICES FOR MATERIALS MANAGEMENT AND PART-B:-PROVIDING SERVICES OF PIT-LESS WEIGH-BRIDGE OF 100 MT CAPACITY OF SIZE 20 M X 3.5 M ON BUILD, OWN AND OPERATE BASIS FOR 2 X 660 MW KHURJA STPP, KHURJA, UP.	
TENDER NO	BHEL/NR/SCT/KHURJA/MM/1184	
SL. NO.	NAME AND DESCRIPTION OF PRE-QUALIFICATION CRITERIA	BIDDER'S CLAIM IN RESPECT OF FULFILLING THE PQR CRITERIA
A	Submission of Integrity Pact duly signed	Not Applicable
B	Assessment of Capacity of bidder to execute the work as per clause 9.0 of NIT	Applicable – by BHEL
C	<u>Technical</u>	Applicable
C-1	Bidder must have, achieved/Executed any one of the following in last seven years as on the latest date of offer Submission:-	
C-1.1	Executed the Material Handling for 1 unit of 400 MW or higher rating thermal power project (Consisting of min. 35824 MT) in a single work order.	
	OR	
C-1.2	One job of material handling(*) of 35824 MT or higher in a single Work Order OR One job of material handling of value of Rs.242 Lakhs or higher in a single Work Order in any Industry, Industrial or Infrastructure project.	
	OR	
C-1.3	2 jobs of material handling (*) each of 22390 MT or higher OR 2 jobs of material handling each of value Rs.151 Lakhs or higher in any Industry, Industrial or Infrastructure project.	
	OR	
C-1.4	3 jobs of material handling (*) each of 17912 MT or higher OR 3 jobs of material handling each of value Rs. 121 Lakhs or higher in any Industry, Industrial or Infrastructure project.	
	OR	
C-1.5	Erection, Testing and Commissioning of Boiler consisting of Pressure Parts, Structure of same unit OR STG as a standalone bidder of one unit of 400 MW or higher in last 7 years as on due date for offer submission.	

D	<u>FINANCIAL:</u>	Applicable
D-1	<p><u>TURNOVER:</u> Bidders must have achieved an average annual financial turnover (Audited) of Rs. 100.8 Lakhs or more over last three Financial Years (FY) i.e. (2016-2017, 2017-2018, 2018-2019). Bidder shall submit the Audited Balance Sheet and Profit & Loss Account in support of this.</p> <p>In case audited financial statements have not been submitted for all the three years as indicated above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years.</p> <p>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.</p>	
D-2	<p><u>NET WORTH:</u> Net worth (only in case of companies) of the bidder should be positive.</p> <p>Note: Net worth shall be calculated based on the latest Audited Accounts, as furnished for 'D-1' above.</p> <p>Net worth = Paid up share capital* + Reserves.</p> <p>(* : Share Capital or Partnership Capital or Proprietor Capital as the case may be).</p>	Applicable
D-3	<p><u>PROFIT:</u> Bidder must have earned profit in any one of the three financial years as applicable in the last three financial years as furnished for 'D-1' above.</p> <p>Note: PROFIT shall be PBT earned during any one year of last three financial years as in 'D-1' above.</p>	Applicable
D-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.	Applicable
E	Approval of Customer	Not Applicable
F	Consortium Criteria	Not Applicable

Explanatory Notes for QR 'C':

(*)Handling of Cement bags, Sacks, Packages, Coal, Sand and all kind of minerals shall not be considered.

1. For C-1.1, C-1.2, C-1.3 and C-1.4 the word '**EXECUTED**' means the bidder should have achieved the criteria specified in the PQR even if the total contract has not been completed or closed.
2. For C-1.1, C-1.2, C-1.3 and C-1.4 the word '**MATERIAL HANDLING**' means Unloading, Verifying, Stacking, Handling and Handing Over of components of Power Plants or Industrial Works.
3. For C-1.5 '**BOILER**' means Coal Fired Steam Generator Only. And '**EXECUTED**' means "BOILER LIGHT UP" in respect of Boiler & Aux.
4. For C-1.5 '**STG**' means Steam Turbine & Generator Only. And '**EXECUTED**' means "Synchronization" in respect of STG.

5. For evaluation of PQR, the credentials of the bidder alone, and not that of the Group Company shall be considered.
6. Completion date for achievement of the technical criteria 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.
7. For criteria 'C' above 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-

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

Where

P = Updated value of work

R = Value of executed work

XN = 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

YN = 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

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.

ANNEXURE - 2**CHECK LIST****NOTE: - Tenderers are required to fill in the following details and no column should be left blank**

1	Name of the Tenderer		
2	Address of the Tenderer		
3	Type of the Firm/ Company		
(i)	In case of Individual Tenderer	His / her full name, address and place & nature of business shall be furnished along with the offer.	
(ii)	In case of Partnership Firm	The names of all the partners and their addresses, A copy of the partnership deed/instrument of partnership duly certified by the Notary Public shall be furnished along with the offer..	
(iii)	In case of Companies	a) Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished). b) Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.	
4.a	Details of Contact person for this Tender	Name : Mr/ Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4.b	Details of alternate Contact person for this Tender	Name : Mr/ Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
5	EMD DETAILS	Not Applicable	
6	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
	DESCRIPTION	APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
7	Whether all pages of the Tender documents including annexures, appendices etc are read and understood	Applicable	YES / NO
8	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE – 1) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
9	Audited Balance Sheet and profit & Loss Account for the last three years	Applicable	YES / NO
10	Copy of PAN Card	Applicable	YES / NO
11	Copy of GST registration	Applicable	YES / NO

SL. NO.	DESCRIPTION	APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
12	Organization Chart of the tenderer's organization, including the names, addresses and contact information of the Directors/Partners shall be furnished along with the offer.	Applicable	YES / NO
13	Integrity Pact	Not Applicable	YES / NO
14	Offer forwarding letter / tender submission letter [Form No. F-01 (Rev 00)]	Applicable	YES / NO
15	Declaration by Authorised Signatory [Form No: F-02 (Rev 00)]	Applicable	YES / NO
16	Declaration by Authorised Signatory regarding Authenticity of submitted documents [Form No: F-02A (Rev 00)]	Applicable	YES / NO
17	No Deviation Certificate [Form No: F-03 (Rev 00)]	Applicable	YES / NO
18	Declaration confirming knowledge about Site Conditions [Form No: F-04 (Rev 00)]	Applicable	YES / NO
19	Declaration for relation in BHEL [Form No: F-05 (Rev 00)]	Applicable	YES / NO
20	Non-Disclosure Certificate [Form No: F-06 (Rev 00)]	Applicable	YES / NO
21	Bank Account Details for E-Payment [Form No: F-07 (Rev 00)]	Applicable	YES / NO
22	Format for seeking clarification [Form No: F-08 (Rev 00)]	Applicable	YES / NO
23	Capacity Evaluation of Bidder for current Tender [Form No: F-09 (Rev 00)]	Applicable	YES / NO
24	Power of Attorney for Submission of Tender/Signing Contract Agreement [Form No: F-25 (Rev 00)]	Applicable	YES / NO
25	Analysis of Unit rates [Form No: F-26 (Rev 00)]	Applicable	YES / NO
26	Tie Ups/Consortium Agreement are submitted as per format [Form No: F-22 (Rev 00)]	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)

ANNEXURE - 3**Authorization of representative who will participate in the on line Reverse Auction Process;**

1	NAME & DESIGNATION OF OFFICIAL	
2	POSTAL ADDRESS (COMPLETE)	
3	TELEPHONE NOS. (LAND LINE & MOBILE BOTH)	
4	FAX NO.	
5	E-MAIL ADDRESS	
6	NAME OF PLACE/ STATE/ COUNTRY, WHEREFROM S/HE WILL PARTICIPATE IN THE REVERSE AUCTION	

TECHINICAL CONDITIONS OF CONTRACT

Of

PART-A:-

THE WORK FOR RECEIPT OF MATERIALS, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION AND HANDING OVER OF PLANT AND OTHER MATERIALS OF TG, ELECTRICAL, ASSOCIATED AUXILIARIES, CHEMICALS, CEMENT, SHOP FABRICATED STRUCTURAL STEEL & REINFORCEMENT STEEL AND PROVIDING SERVICES FOR MATERIALS MANAGEMENT

PART-B:-

PROVIDING SERVICES OF PIT-LESS WEIGH-BRIDGE OF 100 MT CAPACITY OF SIZE 20 M X 3.5 M ON BUILD, OWN AND OPERATE BASIS.

FOR

**2X660 MW KHURJA SUPER THERMAL POWER PROJECT, KHURJA,
BULANDSHAHR, U.P.**



**Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northren Region,
Plot No. 25 , Sector - 16A,
Distt. Gautam Buddh Nagar,
NOIDA – 201 301 (INDIA)**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - I: PROJECT INFORMATION

2X660MW KHURJA STPP- STG PACKAGE

THDC, a joint venture of Government of India & Government of UP, has awarded the work to BHEL for supply, erection and commissioning of “Turbine Generator and Associated packages” for 2x660MW Khurja STPP at Khurja, U.P.

Sl. No.	Title	Description
1	Owner	THDC India Limited (THDCIL)
2	Consultant	NTPC Limited
3	Project Title	Khurja Super Thermal Power Project (2X660 MW)
4	Project Site Location	Khurja STPP is located in Bulandshahar district of Uttar Pradesh. The site is situated near villages Dushhara-kherli, Jahanpur, Naiphal (Unchagaon) and Rukunpur. The district Headquarters Bulandshahar is about 32Kms. Distance of the project site from Delhi is about 90Kms.
5	Nearest Railway Station	The nearest railway station Danwar on Delhi-Kolkata section (via Aligarh) is approx. 5Km away from the project site. The nearest major railway station is Khurja at a distance of about 11kms.
6	Nearest Airport	The nearest commercial airport is Delhi at about 120 km by road
7	Nearest Highway	NH34
8	Nearest Water Body	The upper Ganga canal passes near by the Khurja STPP at a distance of about 13 Kms
9	Seismic Data	The area falls in Zone III (Moderate), according to the Indian Standard Seismic Zoning Map

Note: - The bidder is advised to visit and examine the site of WORKS and its surroundings and obtain for himself on his own responsibility all information that may be necessary for preparing the bid and entering into the CONTRACT. All costs for and associated with site visits shall be borne by the bidder.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - II: SCOPE OF WORK

2.0 SCOPE OF WORK

2.1 PART-A:-

BHEL has been awarded the work of Design, Engineering, supply, erection and commissioning of "Turbine Generator and Associated packages" for 2x660MW Khurja STPP at Khurja, U.P by THDC India Limited (**THDCIL**).

2.2 THE SCOPE OF WORK OF THIS TENDER SPECIFICATION OF MATERIAL HANDLING AND MATERIALS MANAGEMENT SERVICES FOR 2X660 MW Khurja Thermal Power Plant at Khurja, Bulandshahar, U.P. SHALL BE BROADLY AS UNDER:

- a. UNLOADING OF ALL TYPES OF HEAVY CONSIGNMENTS AND/OR OD CONSIGNMENTS (e.g. Stator, HP, IP, LP Turbine, de-aerator, Power Transformers) DIRECTLY FROM TRAILORS/WAGONS BY SUITABLE CRANE OR BY JACK AND SLEEPER METHOD OR ANY OTHER APPROVED METHODE BY BHEL ENGINEER.(ALL THE REQUISITE EQUIPMENTS TO BE ARRANGED BY THE CONTRACTOR).FOR ODC CONSIGNMENTS,THE WORKS ALSO INCLUDE LEVELLING OF THE UNLOADING AREA AND ATTENDANT WORK(IF REQUIRED).
- b. RECEIPT OF MATERIALS DISPATCHED BY ROAD TRANSPORT ON DOOR DELIVERY BASIS AT THE BHEL STORES AND UNLOADING THEREOF.
- c. COLLECTION OF MATERIALS DISPATCHED BY ROAD TRANSPORT/ RAIL ON GODOWN DELIVERY BASIS FROM TRANSPORTERS'/RAILWAY GODOWNS, LOADING AT TRANSPORTERS/ RAILWAY GODOWN, LOCAL TRANSPORT UP TO BHEL STORES/ STORAGE YARD AND UNLOADING THEREOF.
- d. **PRELIMINARY VERIFICATION** OF MATERIALS AT THE TIME OF UNLOADING FROM ROAD TRANSPORT VEHICLE OR WHILE RECEIVING CONSIGNMENTS FROM RAILWAY/ TRASPORTERS' GODOWN - AS THE CASE MAY BE, REPORTING IMMEDIATELY THE DISCREPANCIES LIKE DAMAGES AND SHORTAGES NOTICED.
- e. **DETAILED VERIFICATION** OF MATERIALS WITH REFERENCE TO PACKING LIST AND LOADING ADVICE SLIP AFTER UNPACKING OF BOXES & CRATES; REPACKING, WHERE CALLED FOR, AFTER DETAILED VERIFICATION; PREPARATION OF RECEIPT INSPECTION REPORTS.
- f. **STACKING AND STORING** AT BHEL OPEN STORAGE YARD/ COVERED STORES/ CLOSED & SEMICLOSED SHEDS, SUBMISSION OF STACKING/STORING RECORDS.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - II: SCOPE OF WORK

- g. **PRESERVATION OF THE MATERIALS** IN ACCORDANCE WITH BHEL'S PRESERVATION MANUAL AND/OR AS PER BHEL'S INSTRUCTIONS.
- h. **GENERAL CLEANING, GRASS CUTTING AND UPKEEP OF STORAGE YARD, COVERED AND SEMICLOSED STORES SHEDS** WITHIN THE QUOTED RATES FOR UNLOADING, VERIFICATION AND STACKING.
- i. **PROVIDING MATERIALS MANAGEMENT SERVICES** AS SPECIFIED IN RELEVANT CHAPTER
- j. **REHANDLING AND RESTACKING** OF MATERIALS AS AND WHEN CALLED FOR BY BHEL. THIS ALSO INCLUDES EXCESS/REDUNDANT/ SCRAP MATERIALS RETURNED TO STORES BY BHEL'S CONSTRUCTION & ERECTION CONTRACTORS.
- k. **HANDLING AND LOADING OF OUTGOING MATERIALS** THOSE ARE TO BE SENT TO OTHER DESTINATIONS.

SCOPE OF WORK IS FURTHER DETAILED IN VARIOUS CLAUSES HEREAFTER.

2.3 MAJOR PACKAGES TO BE HANDLED ARE AS UNDER:

- a. Cement, Reinforcement Steel and Structural Steel
- b. Turbine, turbo-generator, condenser, various pumps with drive motors and their auxiliaries including heaters, heat exchangers and de-aerator.
- c. Controls & instrumentation and accessories and cables, trays.
- d. TG & Aux controls and instrumentation and accessories.
- e. Electrical Panels, Power Transformers, cables, cable trays, Bus Ducts and accessories.
- f. Station C&I package with associated equipment's cables & cable trays.
- g. Power cycle and LP Piping, Tanks, Vessels etc.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - II: SCOPE OF WORK

- h. Turbine Insulation and cladding materials.
 - i. HT & LT switch gears, Electrical and pneumatic actuators and motors.
 - j. Circulating water pipes, filter, plate type heat exchanger, CW booster pumps with drives, DM cooling water system and drives, and aux cooling water pumps.
 - k. Other BHEL supplied (manufactured/bought out items) packages.
 - l. Materials and consumables required for erection & commissioning of plant.
 - m. Miscellaneous Chemicals.
 - n. Miscellaneous EOT Cranes & hoist.
 - o. Construction equipment's of BHEL including high capacity cranes sent in dismantled condition and other items received from other sites/locations.
- 2.4 Approx. weight to be handled as indicated in **Annexure-I** is of the order of **85725 MT**. Most of these material required for erection shall be arrive at site well in time for which the contractor shall be required to carry out proper handling, verification, storage and issue as per the scope mentioned in this NIT.

Total Break-up of Approximate Quantities as follows:

- a) For Handling all items of Manufacturing Units, Chemicals = 19,911 MT
- b) For Handling all items of Structural Steel, Reinforcement Steel = 24,870 MT
- c) For Handling of Cement = 33,151 MT
- d) Re-shifting, Restacking & Dispatch of Plant Material, Structural Steel, Reinforcement Steel = 4,478 MT
- e) Re-shifting, Restacking & Dispatch of Cement = 3,315 MT

However depending on site requirements, some of delayed items may need to be delivered directly at site, which may be done by BHEL through its respective erection agency. In such cases where material is received, unloaded and verified by erection agency, the contractor (Material Handling Contractor) will NOT be eligible for any payment for such works. Besides above, BHEL entirely at its discretion (including cases where the contractor is not able to mobilize adequately), may arrange unloading / handling of items like Generator Stators, Generator Rotors, LP Rotors, Feed storage tank etc. and any other materials through its other contractors. The contractor (Material Handling Contractor) in such cases will NOT be eligible for any payment.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - II: SCOPE OF WORK

Annexure-I attached with this NIT gives the general idea about the weights and dimensions of some major components / equipment's to be handled by the contractor. The weights and dimensions shown are approximate and are liable to vary. No increase in quoted / accepted rates /prices shall be allowed due to change in weights and dimensions of the equipment / materials.

2.5 SITE VISIT

Contractor should visit site and acquire full knowledge & information about site conditions and in & around the plant premises, together with all statutory, obligatory, mandatory requirements of various authorities before submission of bid. Post Award no claim shall be admissible in this regard.

2.6 Successful bidder shall have to engage a separate agency/gang for Unloading, Stacking, Issuing, Re-shifting, Re-stacking, Loading etc for Cement Material Handling.

2.7 Weekly Cleaning, Housekeeping etc inside Cement storage shed shall have to be ensured by vendor.

2.8 The contractor is to use his own equipment like suitable cranes / trucks / tractor trailers and other material handling equipment including all necessary small / major T&Ps required for the above work for 2 x 660 MW KHURJA SUPER THERMAL POWER PROJECT at Khurja, Bulandshahar, Uttar Pradesh.

2.9 It will be responsibility of the contractor to keep in touch with M/s THDCIL and BHEL at site to find out the arrival of consignments, and release of truck/trailers after unloading.

2.10 Unloading of heavy or OD consignments (i.e., Generator Stators, Rotors, IP, LP turbine, de-aerator, Power Transformers) directly from trailers by suitable crane or by jack and sleeper method (all to be arranged by the contractor), at the location decided by BHEL engineer shall be carried out by the contractor within the quoted rate. All T&Ps including hydraulic jacks and wooden sleepers required for sleeper/jack method of unloading shall be arranged by the contractor.

2.11 Detailed verification of materials with reference to packing list / Loading advise slip / etc., after unpacking of boxes & crates; repacking where called for, after detailed verification; preparation of receipt inspection reports etc shall be carried out within the quoted rate within 30 days of the unloading. **If the verification is not carried out within 30 days for reasons attributable to the contractor, then BHEL is having right to carry out the verification at the risk and cost of the contractor.**

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- 2.12 BHEL will provide free of cost all necessary preservatives, paints, thinners, rust preventives, grease, lubricants and end caps to contractor for preservation of components. All tools & tackles and other consumables required for preservation of components including supervision shall however be provided by contractor at his own cost. Preservation of components includes applying preservatives, paints, rust preventives, greasing of threaded portions, repainting of work order / DU numbers, component codes etc. After preservation wherever necessary, components will be stacked properly as per original stacking for which no additional payment shall be made.
- 2.13 After the stacking/verification, the materials may need to be restacked / shifted within the storage area as per the instructions of the Engineer. The activity of restacking shall be applicable and payable only if the material after verification need to be shifted and restacked to different location with the help of trailer, crane as per the instruction of BHEL Engineer.
- 2.14 It shall be the responsibility of the contractor to keep in touch with Engineer at site and find out arrival of road consignments. The Contractor shall collect all the parcel way bills / lorry waybills from BHEL site office either personally or through an authorized representative. The contractor or his authorized representative shall, for the purpose, visit the said office every day and collect available GR, RR, LWB, and PWB etc. While collecting the GR, RR, LWB, PWB, contractor or his authorized representative will sign the register maintained for the purpose indicating date and time of collection. The contractor shall keep in touch with carriers and arrange to effect delivery of consignments immediately on their receipts. Delay may cause deterioration of goods apart from attracting demurrage charges. Contractor shall also maintain a register (Manual & Digital both) indicating date of RR, LWB, PWB, date of collection of the materials from road transport agencies / Lorries and date of stacking them at storage yard of BHEL.
- 2.15 It is possible that in certain cases, dispatch documents may not be received in time but BHEL may receive Photostat/Xerox copies of the same. It is, therefore, the responsibility of the contractor to collect these Photostat/Xerox copies while obtaining indemnity bond from BHEL authorities at site.
- 2.16 Payment of all demurrage / wharfages that are due to contractor's fault, would be the responsibility of contractor and to his account. If BHEL has to make payment of demurrage / wharfages along with freight, the amount so paid as demurrage / wharfages, for the reasons stated above, shall be paid by the contractor forthwith or would be recovered from bills of the contractor.
- 2.17 In any case contractor will pursue with concerned Carrier authorities at all level (local/HQ etc.) for waiver / reduction to the minimum of such demurrage charges. Whenever such

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demurrages become payables due to reasons not attributable to contractor, contractor will immediately bring it to the notice of BHEL with specific request to bear such charges. The decision of the Engineer in such case will be final and binding on the contractor.

- 2.18 Any discrepancy / shortage / damage found in the consignment after taking delivery from the carriers after giving clear receipt would be the responsibility of the contractor and the amount liable to be lost by BHEL on such accounts is recoverable from the contractor.

The contractor shall verify the consignments in detail **within 12 days of Receipt and report the discrepancies in prescribed formats not later than 14th day**. Any loss on account of delayed reporting shall be recoverable from contractor's bill/any payment due. Contractor shall arrange all facilities to open packages - where required in the presence of BHEL engineer, verify the contents, repack wherever and whenever called for and properly stack them as per storage manual or/and as may be directed by BHEL.

- 2.19 It would be the responsibility of the contractor to examine the packages, consignments, etc. on arrival and bring to the notice of carriers and BHEL Authorities regarding loss / damages, if any, observed in the consignments proposed to be taken delivery. Before taking delivery, particularly of consignments in 'smalls', the weight of the package shall be checked with the invoiced weight / contents of the packages and any discrepancy shall be reported immediately to BHEL/ carriers. In all the cases of loss / damages the contractor will take open delivery from the carriers & shall forward such Open Delivery Certificates (ODC) to the Engineer within 07 days of retiring such consignments. All expenses connected therewith shall be to the account of contractor. BHEL reserves right to claim losses, if any, accrued to BHEL in the event of contractor's non-compliance to above.
- 2.20 BHEL reserves the right to recover from the contractor any loss which arises out of undue delay / discrepancy / shortage / damage or any other cause during transit and stacking (between the Road / carriers godowns / weigh bridges and BHEL storage yards / store sheds / project site), when the custody of the equipment is with the contractor.
- 2.21 Pre-defined identification system of the locations of open storage yard, covered stores as well as storage racks has to be designed by the contractor with the approval of BHEL. Contractor shall put up prominent identification boards of segmental locations (for open and closed stores) or inscription (on the storage racks) with clear visibility from a distance. Contractor shall also arrange to display plot plan at regular intervals in the covered/ open storage. The contractor shall arrange proper displays/signs for various requirements as per instructions of BHEL.

The display boards shall be made with structural steel & M.S. plates and shall be painted with synthetic enamel paint. Contractor shall have to periodically repeat such exercise as

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the original displays may get lost / damaged / deteriorate with time. All materials and consumables for this purpose shall be arranged by the contractor. Contractor shall have to make his own arrangements including supply of materials for displaying the proper identification tags, boards, marking, inscription etc. As scope of work.

- 2.22 Contractor shall submit procedure with sketches of handling of all heavy components to BHEL well in advance and obtain prior approval before unloading and stacking.
- 2.23 Since this contract is intended to be a complete package from material receipt through issue/transactions right upto material reconciliation, full responsibility w.r.t the proper upkeep of facilities e.g. computers, stationary items; ensuring befitting discipline among the store assistants/staff under its control and accounting of materials on stock shall rest with the contractor at all times.

In the remote possibility of any untraceable material, customarily BHEL has to process the insurance claim. To kick off such claim, the contractor shall render all necessary assistance including augmentation of documents (FIR etc) within the quoted price as may be required for realization of the insurance claim.

- 2.24 Unloading from trailer at storage area / work site stacking and re-stacking of heavy sophisticated equipment like heavy motors, heavy bearings, generators, rotors, C&I panels, turbine components, pumps, panels etc. Shall be done in the presence of or as per the directions of BHEL representative.

Certain items may be dispatched with tie rods/ strips welded with frame carrying items and with trailer. These tie rods / strips are required to cut by using Gas flame or by other method as directed by Engineer for unloading of materials.

- 2.25 Since, the trucks / trailers are expected to arrive during any time of the day / night, the contractor shall have his workmen round the clock at site as well as other places as required to unload the materials.

Consignments coming on Sundays and Holidays are also required to be handled by the contractor promptly. It will be the responsibility of the contractor to contact the site Engineer / his authorized representative of BHEL at their residence, if required, and obtain instructions to make suitable arrangements. The detention charges, if any, in the event of delay in unloading from the carrier, will be on contractor's account.

- 2.26 It shall be the responsibility of the contractor, to provide all necessary facilities and tools to open the packages, in the presence of the Engineer, verifying their contents, re-packing wherever and whenever necessary, properly stacking them as may be directed by the

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Engineer. These works should be so done so as to facilitate proper handling, periodical verification of materials, receipt position, stock taking etc.

The contractor shall have experienced persons at site who can maintain the records of dispatch / receipt/ stacking / verification / shortage / damage / missing items etc.

- 2.27 **All materials shall be stored at least 6" above ground level by use of concrete sleepers. No material shall be left to remain on ground at any time.** Materials shall not be stacked in low-lying areas, where they are likely to get flooded during rains. Concrete sleepers/ blocks and tarpaulins for this purpose wherever deemed necessary will be arranged by BHEL free of cost as decided by BHEL ENGINEER. However these items shall be stacked / stored properly at a location(s) specified by BHEL when not in use. The contractor is expected to use these most judiciously. In case it is observed that the contractor is not utilizing these optimally, he could be asked to re-stack the same at his cost.
- 2.28 It is possible that certain heavy items / consignments may require fabrication of a suitable shed over it. These sheds will be covered with suitable sheets or tarpaulin. The contractor will be required to fabricate such sheds. All materials required for this will be provided by BHEL. However all expenses towards manpower, T&P, consumables etc will be borne by the contractor. After the completion of the work the contractor will dismantle the same and return these materials back to the stores. The contractor will be paid @ Rs. 10,000/- per MT for such works.
- NO ADDITIONAL PAYMENT SHALL BE MADE IN CASE THE STRUCTURE IS FABRICATED OF SCAFFOLDING PIPES, CLAMPS & GI SHEETS. IN SUCH CASES THE MATERIAL SHALL BE ISSUED BY BHEL FREE OF CHARGE TO THE CONTRACTOR. HE SHALL ENSURE THAT THE SAME ARE RETURNED TO THE STORE AFTER THE EQUIPMENT HAS BEEN ISSUED.**
- 2.29 The material / equipment requiring indoor storage will be handled and stacked inside the storage shed (provided by BHEL) by the contractor using own material handling equipment's.
- 2.30 **For checking / verification of the components / packages with packing slips GR/ LWB etc., sufficient experienced persons and other facilities shall be provided by the contractor as and when required by the Engineer.**
- 2.31 Stacking of the material shall be done as per the instructions and to the satisfaction of the Engineer. The materials shall be so stacked that the same should facilitate easy handling. In the event of any improper stacking BHEL may ask the contractor to re-stack the material properly failing which BHEL may get the job done by any other agency at the risk and cost of the Contractor.

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- 2.32 The contractor shall execute the work in the most substantial and workman like manner. The stores shall be handled with care and diligence. Any loss to BHEL due to contractor's lapse / negligence shall have to be made good by the contractor.
- 2.33 In case contractor is not able to unload, transport, stack the material at a pre-determined area, as per direction of the Engineer for any reason whatsoever (including non-availability of crane, tractor trailer and other T&P etc.), BHEL shall be at liberty to get the work done by engaging other agency / equipment / T&P etc. at the risk and cost of the contractor.
- 2.34 If the contractor or his workmen shall break, deface injure or destroy any part of a building, road, Serbs, fenced enclosures, water pipes, cables, drains, electric or telephone posts or wires, trees, stored components or any other property or to any part of erected equipment etc., the contractor shall make the same good at his cost or in default the Engineer may cause the same to be made good by other workmen/agency or by other means and deduct the expense (of which the BHEL Engineer's decision is final) from any sum that may be then or at any time thereafter become due to the contractor or from his security deposit or any other money due.
- 2.35 **It shall be the responsibility of the contractor to keep the storage areas (closed / open) in neat and tidy conditions. Any vegetation like grass, bushes, Sarkandas etc. shall be cut periodically in open storage area & removed as per requirement & instructions of BHEL Engineer within the contractual value.** All surplus / unusable packing materials shall be removed and deposited at location(s) specified by BHEL within the project premises (including weighing of the same within the project premises if required).
- 2.36 Normally the consignments from BHEL's manufacturing units / their sub-suppliers are sent on freight paid basis. In case any consignment is received at any place on freight to pay basis, it will be the responsibility of the contractor to pay the freight and take delivery of such consignments. The amount of freight paid by the contractor at any point of time in such cases will be limited to Rs. 5,000/-. However, the freight paid by the Contractor will be reimbursed by BHEL within a week's time on production of relevant receipts. In case of freight amounts exceeds Rs. 5,000/- contractor may request BHEL well in time to issue cheque /draft for such amounts in favor of carriers towards freight charges.

Delay in issuance of cheque/ drafts as above shall not in any case be taken as a cause of delay in taking delivery of consignment resulting in demurrage leviable by carriers. Receipt of such payment and proof of taking delivery of consignment shall be submitted to BHEL by the contractor.

- 2.37 Normally the consignments are expected to be received inside the Project area. But in case any consignment is booked to any other place in and around Khurja, it will be the
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responsibility of the contractor, if necessary and desired by BHEL, to take delivery as desired by BHEL Engineer. The reimbursement of freight paid, as envisaged in clause 2.36 will be made to the contractor.

- 2.38 In case some materials are required to be dispatched from KHURJA site to manufacturing units, other sites or any other place, the contractor may be asked by the Engineer to get the same packed, transport it to nearest Railway Station / Carrier's godowns and get the same booked. Prior to that Contractor shall identify, tag, pack and prepare gate passes for the materials to be dispatched. Materials shall be loaded onto the outgoing vehicles with due care and handed over to the transporter with clear goods receipt which shall be submitted with BHEL promptly. BHEL shall make arrangement for the transport vehicles at its own cost.

Payment will be regulated on pro-rata basis on the accepted unit rate as per **SECTION A.4 & A.5 OF RATE SCHEDULE, as applicable.**

- 2.39 Such materials which need to be brought to transporter's/railway godown for booking, arrangements shall be adopted as mentioned below:
Contractor shall arrange suitable vehicle for transportation of materials/smalls from stores/storage yard/site to transporters godowns, identify, tag, pack and prepare gate passes for the materials to be dispatched. Materials shall be loaded onto the outgoing vehicle with due care and handed over to the transporter with clear goods receipt which shall be submitted with BHEL promptly within the quoted rates as per **SL NO A.4 & A.5 OF RATE SCHEDULE, as applicable.**
- 2.40 In case some of consignments are to be dispatched on full truck /trailer load basis, where the carriers will place their fleet inside the plant for loading, the contractor may be asked to collect them from different locations of store sheds/yard and load by using his crane and labour.
- 2.41 **MANDATORY SPARES**
- 2.42 Mandatory Spares from various manufacturing units of BHEL may come early during the course of the project and handing over to customer shall be taken up accordingly till completion. Vendor has to do proper identification, separate storage, stacking, verification and separate record keeping of these materials. Vendor has to provide assistance to BHEL during handing over of the materials to customer.

Any discrepancy / shortage / damage found in the consignment after taking delivery from the carriers after giving clear receipt would be the responsibility of the contractor and the amount liable to be lost by BHEL on such accounts is recoverable from the contractor.

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The contractor shall verify the consignments in detail **within 12 days of Receipt and report the discrepancies in prescribed formats not later than 14th day**. Any loss on account of delayed reporting shall be recoverable from contractor's bill/any payment due. During the period of contract it may have to be shifted up to designated store of customer, for handing over. The cost for re-shifting, which is to be done only with proper instruction of BHEL Engineer, shall be paid as per **SL NO A.4 OF RATE SCHEDULE**.

- 2.43 The contractor will arrange for gate passes and any other permits required for carrying out his work from the respective agencies at his own cost. He will also comply with regulations of the customer within the project area, any of the State Government and other Government agencies. Relevant documents if any, if required by THDC/CISF/Govt. Security, Shall be provided by BHEL.
- 2.44 The owner / employer or his authorized agents may inspect stores, storage yard, etc during the period of the contract awarded to him. The contractor shall make necessary arrangements for such inspection and carry out the rectification pointed out by the owner/employer without any extra cost to the owner / employer. No cost whatsoever such duplication of inspection of work be entertained.
- 2.45 Owing to several project requirements, many components may have to be shifted from originally stacked locations to elsewhere within the project premises. This may involve loading of such material onto a vehicle moving to a new location and unloading/stacking including proper inscription of identification marks if needed. List of items duly certified by BHEL official, shifted, updated stock records about change in location etc. shall be prepared/submitted along with the monthly bills.

Separate item rate is there for **RE-SHIFTING AND RE-STACKING** of stacked materials and the payment will be regulated on pro-rata basis on the accepted unit rate as per **SL No A.4 & A.5 OF RATE SCHEDULE, as applicable**.

2.46 **MATERIAL MANAGEMENT SERVICES**

The contractor under this contract shall provide following categories of services at the project site. The resources deployed for MM services by the contractor shall be at the exclusive disposal of BHEL on a full time basis. These shall not be used for any activities associated with the normal responsibilities envisaged under this contract of material handling and material management:

A. Supervision services

Working level supervision of each work spot shall be in the scope of contractor under regular material handling work. On the other hand, supervisory services under MM

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services shall be at one level higher than working level supervision being done as contractor's responsibility towards material handling work. BHEL requires that these services shall be to oversee and monitor the various operations/activities of material handling process. MM supervisory services shall ensure setting broad guidelines to the working level supervisors, monitoring progress of overall plan vis-à-vis implementation, proper and prompt traceability of stock in the stores, identification of corrective & preventive actions in material handling & storage work and implementation of a systematic process to finally ensure achievement of the project schedule.

These shall also include services of personal assistance in the official work of BHEL's construction manager, secretarial services for correspondences and documentation of various departments of BHEL site (erection, commissioning, finance & accounts, stores/material management etc.).

Contractor shall render the services by ensuring deployment of requisite personnel with adequate (minimum diploma in engineering for mm supervision, graduation for secretarial services) educational qualification, having thorough experience in related field to enable understanding the intricacies of and special requirements involved in handling of project materials, inconsistencies and uncertainties associated with in/out flow of materials, project activities at odd hours & holidays and irregular working hours. Contractor shall ensure prompt and timely availability of such services.

The unit of measurement of such services rendered satisfactorily by one person during one month shall be termed as one '**Man-Month**'.

B. Menial Services

Scope shall include services of Office Boy/ Messenger/Peon at BHEL office and stores, for handling correspondences (Dak, Documents, Drawings, etc), and other services e.g. Gardening, Cleaning etc. Man-months spread across various nature of services shall be deployed promptly as per the instruction of BHEL. For definition of Man-Month refer above.

Payment for the **A & B** shall be made as per the man-month rate fixed in **ITEM NO D OF RATE SCHEDULE**, on pro-rata basis as at actuals.

Tentative Requirement:-

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Sl. No.	Category	Deployment Man-Months
1	Skilled	96
2	Semi-Skilled	96
3	Unskilled	192

NOTE: BHEL AT ITS SOLE DISCRETION RESERVES THE RIGHT TO RE-SHUFFLE THE WORK ALLOCATION OF THE PERSONNEL DEPLOYED.

Minimum wages per month fixed in ITEM NO D OF RATE SCHEDULE = (Basic Wages + Special Allowance)

Per Man Day Rate = Total Man-Month Rate (per person) divided by 26 Days.

MONTHLY UNIT RATES ARE BASED ON MINIMUM WAGES AS PER Government of India Ministry Of labour & Employment office New Delhi CIRCULAR AT THE TIME OF NIT AND THE SAME SHALL BE REVISED AS WHEN IT IS CHANGED. THE MINIMUM WAGES PER MONTH SHALL BE PAID AS PER THE RATE GIVEN IN CIRCULAR ISSUED BY Government of India Ministry Of labour & Employment office New Delhi(As Per THDC circular) Dt.23/09/2019*).

SINCE THE RATES AGAINST MANPOWER SERVICES ARE VARIABLE ACCORDING TO PERIODIC REVISION, THE OVERRUN COMPENSATION AS PER GENERAL CONDITION OF CONTRACT SHALL NOT BE APPLICABLE FOR ITEM NO 'D' OF RATE SCHEDULE.

THE ACTUAL REQUIREMENT OF MANPOWER (FOR A & B BOTH) SHALL BE DISCUSSED AND FINALIZED WITH ENGINEER IN-CHARGE REGULARLY DURING THE COURSE OF THE CONTRACT AND TO BE DEPLOYED ONLY AFTER DUE CLEARANCE FROM BHEL ENGINEER.

IN CASE THE CONTRACTOR DOES NOT DEPLOY OR DELAYS DEPLOYMENT OF ABOVE SAID MANPOWER WITH REFERENCE TO SPECIFIC INSTRUCTIONS FROM BHEL, BHEL WILL RECOVER NON-REFUNDABLE PENALTY PER DAY OF DELAY IN THE FOLLOWING MANNER:

- i) RECOVERY AT THE RATE OF THE PREVAILING MINIMUM WAGES PLUS 24.58% (FOR STATUTORY PAYMENTS) AT KHURJA FOR THE RESPECTIVE CATEGORIES STATED ABOVE PLUS 10% WILL BE MADE FROM THE RUNNING/FINAL BILL OF THE CONTRACTOR.
- ii) FOR COMPUTER OPERATOR IF THE MINIMUM WAGE IS NOT AVAILABLE IN SCHEDULE IT SHALL BE TAKEN AS MINIMUM WAGE FOR SKILLED WORKER PLUS 10 %.

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- 2.47 For any exigencies during execution of the contract, the contractor shall have to depute his personnel for collection/delivery of any material meant for site from/to out station if desired and instructed by the Engineer. The contractor will however be reimbursed expenses incurred for such work for person deputed, as below:-
- Second class train fare with reservation / supplementary charges/bus fare subject to furnishing details with proof regarding ticket numbers, journey details, amount of fare etc.
 - Local conveyance charges (Actual bus / cycle rickshaw/ auto rickshaw fare for local journeys at out station) as permitted by the Engineer.
 - Daily allowances @ Rs.200/- per day and @ Rs.500/- per day for lodging.
 - Postal / telegraphic / telephones charges, if any, subject to production of proof of having incurred such expenditure.
 - Freight and other charges, if any, paid on production of actual receipts.
 - Payment for the above will be made by BHEL within a month from the date of submission of bill along with details / desired documents by the Contractor subject to completion of work assigned to contractor personnel and to the entire satisfaction of the Engineer.

2.48 **RESPONSIBILITIES OF CONTRACTOR**

2.48.1 RECEIPT & ISSUE

Scope includes execution of various activities as follows:

- i) Receipt, unloading, carrying out receipt inspection, detailed verification, stacking and regular stock verification of project materials at site.
- ii) Preparing various reports at appropriate stages and reporting damage/loss during receipt as well as storage and any other associated responsibility as assigned by BHEL from time to time. Responsibility shall include the following activities:
 - a) Examination of incoming consignments to detect any loss or shortage or outward damage and recording it on the LR/LWB before making acknowledgement of its receipt from the transporter and simultaneously obtaining endorsement of the vehicle driver on the same.
 - b) Reporting such discrepancy to BHEL immediately on receipt of consignment.
 - c) Assisting BHEL in lodging insurance claims in respect of loss/damage as stated above.
- iii) Issue of materials to BHEL's erection contractors, preservation of stacked materials, re-stacking/re-handling as necessary, progressive and final reconciliation with BHEL's erection agencies and preparation of necessary document/ record in respect of these activities.

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- iv) Return of excess/defective materials by various erection contractors of BHEL.
- v) Loading and dispatch of outgoing materials.

EXPECTED MINIMUM QUALITY OF SERVICE

Contractor shall render the services by ensuring deployment of requisite personnel with adequate educational qualification having thorough experience in related field to enable understanding the intricacies of and special requirements involved in handling of project materials, inconsistencies and uncertainties associated with in/out flow of materials, project activities at odd hours & holidays and irregular working hours. Contractor shall ensure prompt and timely availability of such services.

2.48.2 PRESERVATION OF COMPONENTS

Contractor shall arrange for preservation of components as per BHEL's storage and preservation manual and/or as per instructions of BHEL engineers.

One or more of following methods shall be adopted for preservation:-

- i) Coating with preservative paints/lubricant/inhibitors
- ii) Capping/wrapping/covering
- iii) Filling/immersion in oil/chemicals etc
- iv) Periodic checks/maintaining required nitrogen pressure in tanks of transformers; BHEL will provide the nitrogen gas for the same. However contractor shall handle the cylinders at stores, transport to point of use, fit-up refills and return empty cylinders to BHEL stores.
- v) **HT motors**

For preservation of HT motors, space heaters have to be kept energized to avoid ingress of moisture. Insulation resistance has to be measured and recorded at specified intervals till these are issued for erection. BHEL will provide necessary cables, switches, instruments etc. For this, however contractor shall install, operate and maintain the same.

BHEL will provide free of cost all preservatives like preservative oil, lubricants, chemicals, inhibitors, caps etc except primers & paints. Contractor shall provide red oxide zinc chromate (ROZC) primer conforming to IS: 2074 of reputed manufactures (e.g. Asian paints, Berger, Jenson & Nicholson, Bombay Paints, Shalimar or any other BHEL approved manufacturer) required for preservation shall be provided by the contractor and used for this purpose.

In the process the identification marks, component/material codes, match marks may have to be repainted. This work after preservation components are to be stacked

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properly, periodical reports on the preservation carried out should be submitted to BHEL in the prescribed formats.

2.48.3 RECORD KEEPING

Contractor shall prepare, maintain and update various MM records, associated with materials management operation of BHEL at project site. Two systems of record keeping/capturing information & data at various stages are in vogue viz.

I. Manual ledgers & records.

II. Computerized database application: BHEL has developed a software application named site operations management system (SOMS) that Captures all the data in the entire chain of transactions starting with Master list of project materials, records of dispatch, receipt, Inspection, issue, return, consumption etc.

Some of these records are master shipping/packing list, LR/RR register, Daybook register, stock register, records of issues to & return of materials in respect of various erection subcontractors, insurance claim records, periodical status reports in various formats covering desired aspects and output information as per BHEL/Client's requirement.

Contractor will provide necessary hardware, software & stationary etc. and shall take utmost care to ensure that these properties and records are protected from any Damage or loss. BHEL will recover the cost of such property / expenses of restoration from the contractor with 30% overhead charges in case of any loss/damage attributable to negligence/failure on contractor's part.

The contractor under this contract shall complete induction of following categories of resources within the quoted item rates, to ensure establishment of proper materials management at the project site.

- a) Item rate in the rate schedule has specific mention of "Materials Management" with sole purpose to emphasize the requirement of sufficient no. of adequately qualified manpower to ensure best obtainable quality of work. Accordingly, supervisors/manpower (apart from workmen on cranes and material handling purpose) as indicated against each activity in the table below, normally to work at (but not limited to) BHEL site office.

Contractor shall engage skilled & qualified personnel for Material management in the area of material receipt & its unloading, verification of materials, preservation of materials, record keeping of materials, for dealing with insurance claims and maintenance. For some of the above important area of works indicative deployment of workers shall be as follows:

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SL NO	ACTIVITY/DESCRIPTION	Indicative Manpower	REMARKS
1.	MATERIAL RECEIPT/ UNLOADING, COLLECTION/BOOKINGS/PRESERVATION (TG, T&P, BOP, ELEC, C&I,Structural Steel)	2	To be deployed from 8th month from start of contract period
2.	DETAILED VERIFICATION	1	To be deployed from start of contract period
3.	MATERIAL RECEIPT/UNLOADING, COLLECTION/ BOOKINGS, MATERIAL ISSUE (REINFORCEMENT & CEMENT)	1	From start of contract period to 26th month
4.	MATERIAL ISSUE (TG, T&P, BOP, ELEC, C&I)	1	Within 15 Days from the date of written notice from Construction/Project Manager, BHEL.
5.	PRESERVATION	1	Within 15 Days from the date of written notice from Construction/Project Manager, BHEL.
6.	RECORD KEEPING (TG, BOP, ELEC, C&I)	1	Within 15 Days from the date of written notice from Construction/Project Manager, BHEL.
7.	RECORD KEEPING (T&P STOCK, MRC, ASSISTANCE IN INSURANCE CLAIMS, PURCHASE ETC)	1	Within 15 Days from the date of written notice from Construction/Project Manager, BHEL.

NOTE:

1. THE NO. OF PERSONS INDICATED ABOVE IS TENTATIVE AND ACTUAL DEPLOYMENT MAY VARY BASED ON WORK LOAD AND SITE REQUIREMENT. THE MANPOWER REQUIREMENT SHALL BE FINALISED IN THE BEGINNING OF THE CONTRACT PERIOD WITH BHEL ENGINEER INCHARGE AND MAY BE REVIEWED DURING THE COURSE OF THE PROJECT. THIS DOES NOT ABSOLVES THE CONTRACTOR FROM HIS RESPONSIBILITY TOWARDS THE SATISFACTORY EXECUTION OF THE JOB.

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2. IN CASE THE CONTRACTOR DOES NOT DEPLOY OR DELAYS DEPLOYMENT OF ABOVE SAID MANPOWER WITH REFERENCE TO SPECIFIC INSTRUCTIONS FROM BHEL, BHEL WILL RECOVER NON-REFUNDABLE PENALTY AS:
- i) RECOVERY AT THE RATE OF THE PREVAILING MINIMUM WAGES PLUS 24.58% (FOR STATUTORY PAYMENTS) AT KHURJA FOR THE RESPECTIVE CATEGORIES STATED ABOVE PLUS 10% WILL BE MADE FROM THE RUNNING/FINAL BILL OF THE CONTRACTOR.
 - ii) FOR COMPUTER OPERATOR IF THE MINIMUM WAGE IS NOT AVAILABLE IN SCHEDULE IT SHALL BE TAKEN AS MINIMUM WAGE FOR SKILLED WORKER PLUS 10 %.
- 2.49 Payment for all materials including over dimensional and heavier components shall be regulated on the accepted unit rate -**ITEM NO A.1 of rate schedule. ITEM NO. A.1 of rate schedule is inclusive of payment against above listed manpower. NO SEPARATE PAYMENT WILL BE MADE FOR THE ABOVE LISTED MANPOWER.**
- 2.50 **Contractor shall make necessary arrangements to ensure following :**
- 2.50.1 Contractor has to maintain contact with local hospital having ambulance facility, scanning & other ultra-modern medical facilities required during emergency.
 - 2.50.2 Contractor has to ensure pre-employment medical check for all staff & workers.
 - 2.50.3 Contractor has to ensure that adequate First Aid facilities with trained nurse are available at work site for emergency purpose. This emergency set-up should include, but not limited to, following:-
 - a) Male nurse (in shifts)
 - b) Oxygen set up
 - c) Breathing apparatus
 - d) Eye wash facility
 - e) Stretcher
 - f) Trauma blanket
 - g) Medicines.
- In addition to above, BHEL (through its other contractor) has arranged ambulance at work site for emergency purpose, which can be utilized by the contractor in case of emergency. The charges for the same will be decided mutually at site. In case, under

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unavoidable circumstances, if the ambulance is not available / being used elsewhere, the contractor will have to arrange for the same as under clause 2.50.1.

2.51 The contractor shall comply with following towards Social Accountability;

- a. The contractor shall not employ any employee less than 15 years of age in pursuant to ILO convention. If any child labour were found to have been engaged, the Contractor shall be levied with expenses of bearing his education expenditure which will include stipend to substantiate appropriate education or employ any other member of family enabling to bear the child education expenditure.
- b. The contractor shall not engage Forced/ Bonded Labour and shall abide by abolition of Bonded Labour System (Abolition) Act, 1976.
- c. The contractor shall maintain Health & safety requirement as stipulated in the Contract and Contract Labour (Regulation & Abolition) Act, 1970.
- d. The Contractor shall abide by UN convention w.r.t. Human Rights and shall be liable for Discrimination / Corporal Punishment for failure in meeting with relevant requirements.
- e. The Contractor shall abide the requirement of Contract Labour (Regulation & Abolition) Act, 1970 for working hours.
- f. The Contractor shall abide by the Statutory requirement of Minimum Wages Act 1948, payment of Wages Act 1936.
- g. The Contractor shall arrange potable drinking water to its employees & workers.

2.52 Contractor shall ensure daily housekeeping and keep proper cleanliness of work place and do the disposal of wastes to certified area.

2.53 PART-B (Clause 2.53 to 2.85):-

WEIGH BRIDGE: Scope of Services/Work & Contractor's Responsibilities:

Providing services of Pit-less Weighbridge of 100 MT Capacity of size 20 m x3.5 m on Build, Own and Operate basis at the construction site of 2X660 MW THDCIL KHURJA SUPER THERMAL POWER PROJECT.

The total contract period shall be 30 months and be divided in two parts as under:

- (A) **INSTALLATION PERIOD:** The installation period of 2 months is provided for contractor to install & commission his equipment, set up the necessary establishment and make operational all his facilities for rendering the service.
- (B) **OPERATION PERIOD:** The operation period shall be 28 months from the date of completion of declaring the facilities of contractor as "Operational" as per relevant clause.

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- 2.54 The Scope of Services shall include Design, Procurement/Manufacturing, Deployment at Project Site, Civil Construction, Installation, Testing, Commissioning, Operation (including manning in required shifts as per BHEL requirement), Maintenance (including supply of spare parts for day to day operation and also for the scheduled and/ or breakdown maintenance of all the equipment, Instruments and complete installation in totality), Dismantling after closure of Services, removal and disposal of equipment, scrap, earth, debris etc. from project site and restoration of the location in clean, level & soil compacted state. Approach road to the Weigh Bridge from Main Road shall be excluded from the scope and same shall be executed by BHEL.
- 2.55 The above scope of work includes complete civil work like excavation, suitably capable foundation & backfilling, leading and trailing ramps of RCC of gentle gradient etc. complete for installation of Weigh Bridge and Operation-cum-Control Room including, Mechanical, Electrical and Electronics items and any other items necessary for regular operation of the Weigh Bridge including cost of materials, labour, permits, licenses etc as applicable.
- 2.56 All equipment necessary for the required service shall be tested as per relevant IS and/or other applicable specifications at works prior to the shipment to site for Installation. **On completion of Installation and Commissioning of the complete facility the same shall, in witness of BHEL, be subject to Load Test / Acceptance Test as per applicable Indian Standards or relevant engineering practice. On successful completion and acceptance of such test duly certified by BHEL, the equipment/installation shall be declared 'Operational' for contractual purposes.**
- 2.57 The service shall be rendered to suit BHEL site requirement, which may require single shift/ two shift/ round the clock, operation of the facilities. The services may be required on weekends and holidays as well, as per BHEL site activities.
- 2.58 Void
- 2.59 All Tools & Plants including crane, if any, materials, consumables etc required for installation of Weigh Bridge and all other facilities etc are in the scope of the service provider. All consumables required for Operation and the contractor shall arrange maintenance of the facilities. BHEL shall not provide any facility in this regard.
- 2.60 All staff, skilled, semi/un-skilled labour for Installation and Commissioning, Operation and Maintenance and any other requirement for rendering the service shall be in the contractor's scope.

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- 2.61 Contractor shall arrange and ensure periodical calibration of the facilities/ equipment with / from the Government authorized agency / Govt. Department with traceability to National Physical Laboratory of India. Also, all the relevant test as per IS and/or any other requirement shall be arranged by the contractor. The proof of all such calibrations and tests shall be furnished to BHEL. All fees, charges as applicable in this regard are in contractor's scope.
- 2.62 Contractor shall arrange Inspection by the Statutory Authorities as applicable to all his facilities and operation. Contractor shall pay all fees, charges etc as applicable.
- 2.63 The Contractor shall arrange construction water required for civil works of the Weighbridge.
- 2.64 BHEL shall provide at one point the electricity supply 230 V, 50Hz, for Installation and for Operation & Maintenance of the contractor's site facilities. However, all necessary arrangements for drawl and distribution (with complete arrangement for cables, distribution boards and protection devices such as breakers etc) for his use shall be arranged by the contractor. This set up has be approved and cleared for use by the relevant authority (electrical inspectorate). BHEL shall not be responsible for damage(s), if any, to contractor's facilities/ equipments etc on account of any fluctuation in supply side parameters.
- 2.65 Contractor shall arrange appropriate insurance cover for his installations and facilities as also for staff and labour for entire period of contract and extension thereof, if any Proof of it shall be furnished to BHEL.
- 2.66 Contractor shall make security arrangement for his installations and facilities.
- 2.67 Contractor shall provide area illumination around his facilities suitable to need and in consultation with BHEL.
- 2.68 Regular repair, maintenance and upkeep of all installations & facilities arising out of wear and tear during use particularly of ramps and platforms shall be ensured for satisfactory availability and operation of installations & facilities as incidental.
- 2.69 On completion of service contract period the complete set up installed and other facilities created shall be removed by the contractor and from the project premises and level the ground etc without any additional cost to BHEL within time frame specified by BHEL. BHEL

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will not provide any T&P, consumables etc for removal of contractor's facilities and equipment's etc.

- 2.70 Contractor shall follow all regulations and BHEL directives with regard to Safety as applicable to the service being rendered.
- 2.71 Contractor shall obtain necessary Gate Pass, permission for shift operation/overstay as may be required by BHEL/Client for the time being.
- 2.72 Contractor at all times during the currency of this contract shall possess necessary license, permits as applicable to the provision of this service and pay all fee and charges as may be applicable. BHEL shall in no way be held responsible for any of the lapse of the contractor.

2.73 BRIEF TECHNICAL SPECIFICATION OF THE WEIGH BRIDGE IS AS FOLLOW:

Number Required	1
Carrying capacity/strength	120 MT
Weight capacity	100 MT
Type	Pit Less Type Road Weigh Bridge
Number of Platform	1
Size of platform	20m X 3.5m
Least count	10 Kg
Purpose	Weighment of Laden and Empty Trucks, Trailers, Tankers etc
Accuracy	(+/-) 0.05% of Full Scale
Type of the system	Microprocessor controller based with load cells
Display	Digital display in Kilograms for full
Print out	Automatic print out should be generated for each weighment through the System.
Capacity and should have adequate font size (at least 13mm) legible with contrasting background.	

- 2.74 Bidder shall along with his offer submit the complete technical information with regard to the weighbridge offered as part of service.

Refer Annexure-II Technical Specification of Weigh Bridge.

FACILITIES TO BE PROVIDED BY BHEL

- 2.75 BHEL will provide only the space/land free of cost for setting up the Weigh Bridge.

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- 2.76 Approach road to Weigh Bridge shall be provided by BHEL for the movement of loaded/unloaded trailers/trucks etc.
- 2.77 As provided elsewhere BHEL will provide Electric supply at one point to the contractor. Electricity is chargeable. However, any cess and duties levied/leviable on electricity consumed shall be to the contractor's account.

AVAILABILITY OF SERVICES, PREVENTIVE MAINTENANCE, BREAKDOWN MAINTENANCE & PENALTY DUE TO BREAKDOWN ETC.

- 2.78 Contractor shall provide his equipment and other resources in such a manner so as to ensure uninterrupted service as and when required by BHEL. Accordingly all his installations and facilities shall be operative. No undue delays shall occur in weighing of carriers on account of any failure of contractor's services.
- 2.79 For preventive maintenance, contractor shall plan the activities in advance in consultation with BHEL and execute such plans within the time approved by BHEL, expeditiously so as to ensure barest minimum down time. No penalty will be charged for such down time for preventative maintenance.
- 2.80 For unforeseen Breakdowns in a service month a cumulative Service Non-availability of 3 days (72 Hrs) but not exceeding 12 Hrs. at a stretch on any single occasion will be permitted, as incidental and no penalty shall be levied for such breakdowns. However, contractor shall expedite remedial action so as to restore the services back to normal with least of disruption. Such allowable breakdown duration can be availed only in the concerned service month and cannot be adjusted against any other service month. Also such allowance shall be applicable only in case of a machinery breakdown/malfunction and not for any break in services attributable to absenteeism of personnel.

PENALTY

- 2.81 In case the contractor fails in delivering the contracted service over and above the allowed period as specified above, BHEL shall levy penalty for each additional hour or part thereof beyond such allowances in the following manner:
- a) The regular payment (as per Terms of Payment) for those many hours of service not available beyond allowance shall not be paid. The Hourly rate shall be calculated as under:

Amount Payable for the relevant Service Month

b) **HOURLY RATE =** -----

30 days X 16 hours

Amount payable for the relevant Service Month is calculated as per TCC clause no. 7.11(ii).

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In addition to the disallowance of regular payment as above, a non-refundable penal charge at the rate of 50% of such hourly rate for the hours of service not available beyond allowed periods shall also be levied in the RA bill of respective month.

2.82 VARIATION IN QUANTITY/DURATION:-

It is anticipated that in total about 58,021 MT of incoming and outgoing materials, mostly steel & cement, will pass through the weighbridge spread over the Operation Period and Extensions thereof. However, these quantities and Operation Period may vary to any extent on upper/lower side depending upon the site conditions and BHEL requirements. No claim whatsoever from the contractor shall be entertained on account of any such variation in quantities or Operation Period.

2.83 The service shall be rendered and facilities shall be available for exclusive use of BHEL. The facilities shall not be used for any commercial use other than that as specified in this Tender Specification.

2.84 Service provider shall take back the entire installation (building, foundation, equipment, accessories etc.) after the completion of Contract Period (including extensions thereof).

2.85 The contract shall deem to be completed when so certified by BHEL. All the above works shall be measured and paid under relevant item of BOQ. All the above jobs shall be as per BHEL Engineer's instructions, drawings, detailed specification and respective bill of quantities furnished in the Rate Schedule.

2.86 VARIATION IN QUANTITY (Clause no. 2.14 of GCC)

The quantities against each item of the Rate Schedule are approximate and may vary up to any extent or may be deleted altogether. The agreed rate of each item shall remain firm for any variation in individual quantities. **Compensations on account of such variation shall be dealt as per clause no. 2.14 of GCC where 'Awarded Contract Value' shall be referred to Items rates of Sl. No. A of RATE SCHEDULE ONLY.** The Payment shall be made as per agreed item rates for the quantities actually executed and measurements by BHEL. The contractor has to take note of this and quote his rates accordingly.

Responsibility of the Contractor (Weigh Bridge)

2.87 The contractor shall engage all the unskilled, skilled and especially skilled labor including fabricators, welders and fitters etc. and supervisory staff. Only trained and competent personnel with previous experience in the job shall be employed. However, BHEL reserves the right to decide on the suitability of the workers and other personnel who will be employed by the contractor. BHEL reserves the right to insist on removal of any employee

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of the contractor at any time, if they found him unsuitable. The contractor shall be bound to follow the instruction of BHEL.

- 2.88 All the materials like steel, structural members, painting materials, G.I. Sheets, MS square bar and necessary electric goods etc. shall be supplied by the contractor as per the specification mentioned in the tender/Indian standard specification. The contractor is required to quote their rates inclusive of cost of all materials, labor, etc. BHEL reserves the right to inspect and reject any material not found satisfactory.

General (Weigh Bridge)

- 2.89 During execution of the job, it is very essential that proper and adequate inspection should be made constantly by the contractor to maintain quality of workmanship and to ensure that deviations from BHEL drawings not exceed the permissible limits, which shall be approved by BHEL. Necessary laboratory test shall be conducted on random sampling basis for the materials like Bricks, steel, cement etc if so desired by BHEL Engineer. Apart from that Contractor shall also ensure Field Quality Test (FQA) like Compressive Strength Test of concrete (cube test), Sieve Analysis of aggregates, and Compaction Test for backfilling as per Standard Practice and Relevant IS codes either at site or nearby Field Quality Lab. approved by BHEL. All the testing charges shall be borne by the contractor. Decision of BHEL engineer shall be binding on the contractor. Contractor shall procure reinforced / structural steel & cement from reputed manufacturer/ Authorized dealer & approval for the same shall be obtained from BHEL well in advance before ordering of the materials.
- 2.90 The contractor shall visit the site and ascertain the local conditions, entry and traffic restrictions, all obstructions in the area and also ascertain all site conditions and particularly the sub-soil conditions etc. The contractor shall carry out the survey to study the properties of soil/sub soil like strength to withstand the weight of structure during all weather conditions without sinking of foundation. If any of such defects like cracks, sinking of foundation etc. occur after completion of work till the performance guarantee period, it shall be rectified by contractor free of cost including the supply of materials required. No claim shall be entertained on this account under any circumstances from the contractor.
- 2.91 The contractor shall provide and maintain at his own cost pumps and other equipment to keep the work free from water and continue to do so until the handing over of the work. The contractor shall clear all trees, rubbish, vegetation, brickbats etc. And dispense them suitably in allotted areas at his own cost.
- 2.92 The contractor shall take adequate precautions to ensure complete safety and prevention of accidents at site. The safety precautions shall conform to IS codes wherever applicable.
- 2.93 The contractor shall, at all stages of work deploy skilled/semi-skilled tradesman/worker who are qualified and possess certificate in particular trade from CPWD Training Institute

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/ 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 tradesman along with requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesman are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesman 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 tradesman 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.

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CHAPTER - III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL

3.0 FACILITIES IN THE SCOPE OF BHEL/CONTRACTOR

S.No.	Description	Scope		Remarks
		BHEL	Contractor	
3.1.0	ESTABLISHMENT			
3.1.1	FOR CONSTRUCTION PURPOSE			
A.	Open space for office	YES		Free of charge. As and where made available by customer M/s THDCIL /BHEL
B.	Open space for storage	YES		Free of charge. As and where made available by customer M/s THDCIL /BHEL
3.1.2	FOR LABOUR COLONY			
A	Open space		YES	To be arranged by Contractor <u>outside plant premises.</u>
3.2.0	ELECTRICITY			
3.2.1.	Electricity for construction purposes (chargeable/free)			Chargeable As per THDCIL standard rates <u>Contractor shall install calibrated energy meter for metering electricity consumption.</u>
3.2.1.1	Single point source	YES		As per Construction power provided by customer
3.2.1.2	Further distribution for the work to be done which include supply of materials & execution		YES	
3.2.2	Electricity for the office, weigh bridge, stores, canteen etc of the bidder which include:			
3.2.2.1	Distribution from single point including supply of materials & service		YES	

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER - III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL

S.No.	Description	Scope		Remarks
		BHEL	Contractor	
3.2.2.2	Supply, Installation & connection of material of energy meter including operation & maintenance		YES	
3.2.2.3	Charges, Duties & deposits including statutory clearances for above		YES	
3.2.2.4	Demobilization of the facilities after completion of works		YES	
3.2.2.5	Electricity for living accommodation of the bidder's Staff, engineers, supervisors etc. on the above lines	NA	NA	No Accommodation inside premises.
3.3.0	WATER SUPPLY			
3.3.1	FOR CONSTRUCTION			
3.3.1.1	Making the water available at single point		YES	Contractor has to arrange on his own
3.3.1.2	Further distribution as per the requirement of work including supply of materials & execution		YES	
	FOR LABOUR COLONY			
	Making the water available at single point		NA	No Accommodation inside premises.
	Further distribution as per the requirement of work including supply of materials & execution		NA	
3.4.0	LIGHTING			
3.4.1	For Material Handling work (supply of all materials) 1. At office storage area 2. At Yard or any other places where material is unloaded/stored		YES	
3.4.2	For material handling work (execution of lighting work/arrangements) 1. At office storage area		YES	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL

S.No.	Description	Scope		Remarks
		BHEL	Contractor	
	2. At Yard or any other places where material is unloaded/stored			
	Providing the necessary consumables like bulbs, tubelights, Switches, etc. for maintaining the lighting system		YES	
3.5.0	Communications facilities for site operations of the bidder			Shall be for contractors own use only.
3.5.1	Telephone, fax, internet, intranet, email etc.		YES	

- 3.1 BHEL will not be responsible for any loss or damage to the contractor's equipment as a result of variation in voltage or frequency or interruptions in power supply.
- 3.2 The Contractor shall be responsible for providing all necessary facilities like residential accommodation, transport, electricity, water, medical facilities etc. at his own cost as required under various labour laws and statutory rules and regulations framed there under to the personnel employed by him.
- 3.3 Provision of distribution lines of both electrical power and water from the central points to the required place with proper distribution boards observing the safety rules laid down by the electrical authorities of the state shall be done by the contractor, supplying all the materials like cables, distribution board, switch boards, TPN, CBS, ELCBS/ MCCBS/ Copper / Brass clamps, copper conductor, change over switches pipes etc. at his own cost. If any failure is caused in supply of the power and water, it is the responsibility of the contractor to make alternate arrangements at his cost. The contractor shall adjust his working shifts / hours accordingly and deploy additional manpower if necessary so as to achieve the targets. **The energy meter to be installed by the contractor & shall be tested and certified by State Electricity Board or any other agency approved by M/s THDCIL at his cost.**
- 3.4 The contractor while drawing construction power supply from Distribution Board should strictly adhere to following points.
- b) All electrical installations should be as per Indian Electricity rules.
 - c) All distribution Boards installed by the contractor should be constructed with fireproof materials viz. Steel frames, Bakelite sheets etc.
 - d) Connection for single phase should be taken from phase and neutral. Nowhere the connection should be taken with earth as neutral.
 - e) All electrical connections should be made through connectors, nuts and bolts, switches, plug and sockets. Loose connections or hooking up of wires shall not be permitted.
 - f) Contractor have to make their own earthing arrangement for their equipment / DB earthing.

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CHAPTER - III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL

- g) All electrical equipment / tools and plants should be properly earthed. DBs to be earthed diagonally opposite at two points.
 - h) Contractor should use “MCCB” and “ELCB” either on incoming or outgoing connections to the DBs.
 - i) Contractor should ensure that all the CBs / TPNs/ Fuses/ MCCB / ELCB cables etc. should be of adequate rating/ capacity.
 - j) For permission of supply connections contractor has to submit a test report of their installations with a single line diagram of connected/ proposed loads.
- 3.5 ELCB will be tested once in a week or as directed by BHEL by actually simulating the earth leakage for all installations and the same shall be recorded in the logbook to be maintained by the contractor.
- 3.6 In case of power cuts / load shedding no compensation for idle labour or extension of time for completion of work will be given to contractor.
- 3.7 On completion of work or as and when required by BHEL, all the temporary buildings, structures, pipe lines, cables etc. shall be dismantled and levelled and debris shall be removed, as per instructions of BHEL, by the contractor at his cost. In the event of his failure to do so, BHEL will get it done and expenses incurred shall be recovered from the contractor along with prevailing overheads. The decision of BHEL Engineer in this regard shall be final.
- 3.8 **Contractor should install PCs ALONG WITH MODEM to connect with our server (LAN) AT SITE.**

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CHAPTER - IV: T&PS TO BE DEPLOYED BY CONTRACTOR

4.0 T&Ps AND IMTEs DEPLOYED BY CONTRACTOR

S.NO.	EQUIPMENT	QTY. IN NOS.	DEPLOYMENT PERIOD		
			From	To	Total Period
1.	40 MT Crane	01	From 9 th month of contract period*	48 months	40 months
2.	Crane I(Hydra 18 MT)	01	From start of contract period*	52 months	52 months
3.	Crane II(Hydra 18 MT)	01	From 13th month from Start of contract period*	46 months	34 months
4.	20 MT Trailer with Pulling Unit	01	Start of contract period**	52months	52 months
5.	10/20/50/100 MT Hydraulic Jacks	APR**			
6.	Wooden Sleepers Assorted sizes(LXBXH) 6' ft x 10" x 6"	500 Nos	Start of contract period*		
7.	SLINGS, 'D'-SHACKLES, MAX PULLER. (01 MT TO 10 MT)	10 Pair			
8.	SLINGS, 'D'-SHACKLES, MAX PULLER, PULLEY BLOCKS, HYDRAULIC JACKS, ETC ABOVE 10 MT. (WITH TEST REPORTS)	APR**			
9.	SPANNER SETS RING/D UPTO 56 MM	1 Set	Start of contract period*		

* The date of start of contract period shall be the mutually agreed date between the contractor and BHEL engineer to start the work. In case of discrepancy the decision of BHEL engineer is final.

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CHAPTER - IV: T&PS TO BE DEPLOYED BY CONTRACTOR

**** APR- As per requirement (Contractor shall have to deploy the T&P whenever required at site as decided by BHEL ENGINEER)**

4.1 The above list specifies only major T&Ps (may not be complete) to be deployed by the contractor and is based on minimum requirement. All additional / other tools and plants including suitable capacity D shackles, slings, rails, sleepers, hydraulic / mechanical jacks etc which are required for satisfactory & timely completion of work shall also be deployed by the contractor within finally accepted rate / price.

4.2 The above list is only indicative and these T&Ps may not be required for entire contract period but contractor shall ensure the availability of the T&Ps as per work requirement and T&P Deployment schedule.

T&P Deployment schedule shall be finalized at site in consultation with BHEL Engineer based on the work fronts/work requirement. BHEL decision shall be final and binding regarding the T&P deployment schedule. Contractor shall mobilize / maintain the T&P's as per the deployment schedule notified time to time by BHEL Engineer.

4.3 If any one of T&P mentioned above is not needed for proper execution of scope of work, provided contractor has not utilized BHEL free issued T&P for completing such work, no recovery from contractor shall be applicable.

4.4 Any additional item required in addition to above mentioned T&P for proper execution of scope of work, contractor has to arrange such T&P within quoted rate on the instruction of BHEL in writing in a reasonable period within two weeks from the written instruction from BHEL.

4.5 Crane log sheet for each of the crane on daily basis are to be certified by the BHEL engineer. Contractor shall submit the monthly Running Account Bills along with duly certified log sheets.

4.6 Contractor shall ensure that all the MMEs, T&Ps, cranes and trailers mentioned in the deployment plan shall be in good working condition throughout the period mentioned in the deployment plan. In case of non-compliance if any as **listed in clause 4.7 below**, the charges as per rates towards deployment of the particular T&P for each month shall be not be paid, which are calculated **as per the Cl. No. 7.5 Sl. No.2**, in the running bills of the respective months for any or all of the non-compliance if any, as mentioned below.

(Explanation: If there is non-compliance as listed below in any one particular crane/T&P in any one month then the charges shall be unpaid in the running bill of that month for that crane/T&P).

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - IV: T&PS TO BE DEPLOYED BY CONTRACTOR

4.7 List of non-compliance:

- i. In case deployment of T&P w.r.t requirement/schedule, is delayed or deployed for a shorter period or abnormal down time of T&P.
- ii. In case T&P w.r.t requirement was not deployed by the contractor as per instruction of BHEL and BHEL had to deploy either its own T&P.
- iii. BHEL had to deploy the T&P from outside agency.
- iv. Non availability / not working condition of the particular crane cumulatively for more than 10 (ten) working days in the calendar month during the period mentioned in the deployment plan.
- v. Non availability / not working condition of the particular crane for more than 05 (five) consecutive working days in the month during the period mentioned in the deployment plan.

- 4.8 In case BHEL had to deploy its own T&P, hire charges of T&P applicable for outside agencies as per extant guidelines for “Hire Charges on issue of Capital Tools & Plants” shall be recovered.

In case BHEL had to deploy the T&P from outside agency, actual hiring cost plus applicable overheads shall be recovered.

- 4.9 In case the contractor does not deploy or delays deployment or major T&P with reference to schedule specified or T&P deployed is out of service for continuous more than 5 days, BHEL will recover non-refundable penalty per day in the following manner-
- In respect of each 40MT/50MT crane- @ Rs 5000/- per day
In respect of each hydra 12T/14T/18MT/20 MT- @ Rs 3000/- per day
In respect of each trailer 20MT- @ Rs 2000/- per day
For the daily recovery rate for other T&P/IMTEs BHEL Engineer decision shall be final and binding on the contractor
- 4.10 All the tools and tackles/measuring instruments shall be duly tested/calibrated and valid certificate to that effect should be submitted to BHEL site in-charge before the start of work.
- 4.11 T&P's mentioned above shall be specifically deploy as per the respective packages. However, as per work requirement and availability of T&Ps the inter use in Material Handling and Mechanical works may be permitted as per the instruction of the BHEL Engineer.
- 4.12 If the work related to T & Ps mentioned above is completed then, BHEL can release that T & P during contract period / extended period if any. However, written permission shall be taken by contractor from BHEL construction Manager for releasing the T&P.

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CHAPTER - IV: T&PS TO BE DEPLOYED BY CONTRACTOR

- 4.13 In addition to the deduction mentioned in clause 4.6 & 4.7 above, if work gets delayed due to non-availability of any T & P, BHEL reserves the right to get the work done at the risk and cost of contractor.
- 4.14 Any or part or all of the T & Ps of the contractor identified for the tendered package shall not be engaged for any works other than that of the works intended in this tender.
- 4.15 In case BHEL decides to engage the cranes for any of its job then the contractor is bound to operate the cranes with his own operator as per the direction of BHEL engineer. However, the mutually agreed charges towards high speed Diesel only shall be paid to the contractor. No other charges shall be payable to contractor on account of this.
- 4.16 During the extended period of contract, if any, contractor shall arrange all MMEs, T & Ps excluding the cranes and trailers. Arranging cranes and trailers shall be governed suitably by clause 4.18 below.
- 4.17 Deployment of cranes and trailers mentioned in the deployment plan, if required for more period of deployment, over and above the indicated period, shall be deployed by the contractor against specific request from BHEL. The charges towards deployment of the particular T & P for each month shall be paid which are calculated **as per the Cl. No. 7.5 Sl. No.2.**
- 4.18 The manufacturing year of all major T&Ps deployed by the contractor (40 MT /mobile crane and 20/18 Ton hydra crane) should not be more than 10 years as on the date of deployment. The documentary proof to be submitted to site In-charge.
- 4.19 The first RA bill shall be released only after receipt 100% of wooden sleepers at site. The sleepers are to be taken back by the contractor on as is where basis is. No claim on account of damage /loss shall be payable by BHEL.
- 4.20 During the extended period of contract, services of T&Ps shall be provided by the contractor as per the instruction of BHEL engineer. The monthly charges towards deployment of the particular crane shall be paid at the rate of 90 % of monthly awarded rates for a period of 12 months after completion of contract period. Thereafter (contract period+12 months) rate will be decided after mutual agreement. No extra payment shall be made for T&Ps other than cranes.
- 4.21 **Duration for deployment of major T&Ps for which separate monthly hiring rates are being paid as per ITEM No. B OF RATE SCHEDULE is tentative and may change as per requirement. Mobilization and demobilization of these T&Ps shall strictly be done as per the instructions from BHEL. BHEL also reserves the right to direct the contractor to**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - IV: T&PS TO BE DEPLOYED BY CONTRACTOR

dis-continue/ de-mobilize any/all of these cranes within the contract period/extended contract period with 60 days advance written notice without assigning any reason. No payment will be made for the period after the date of demobilization/discontinuance notified by BHEL.

- 4.22 If the work related to T & Ps mentioned above is completed then, BHEL can release that T & P during contract period / extended period if any. However, written permission shall be taken by contractor from BHEL construction Manager for releasing the T&P.
- 4.23 Any or part or all of the T&Ps of the contractor identified for the tendered package shall not be engaged by contractor for any works other than that of the works intended in this tender. **However BHEL reserves the rights to engage those T&Ps for which separate monthly rates are being paid as per ITEM No. B OF RATE SCHEDULE for its own works other than that of the works intended in this tender during the period of contract. In such cases fuel will be provided by BHEL. However operator for the same shall be provided by contractor.**

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CHAPTER - V: T&PS TO BE DEPLOYED BY BHEL ON SHARING BASIS

5.0 T&Ps AND IMTEs DEPLOYED BY BHEL ON SHARING BASIS

LIST OF T&P BEING PROVIDED BY BHEL ON FREE OF HIRE CHARGES AND ON SHARING BASIS			
Sl. No.	Equipment	Capacity	Qty.
1	EOT Crane	180/20 MT	1 No
2	CRAWLER CRANE	100/135/270 MT	1 No

NOTES:

1. Cl.4.2.2.16 c) of SCC shall be read

- a. **For BHEL's cranes 75 MT & above:-** Day-today upkeep and running maintenance like filling topping up of lubricants, changing filters, etc. including repair of self-starter, batteries and dynamo of these cranes shall be excluded from the scope of the contractor.
- b. **For BHEL's cranes below 75 MT capacity:-** Day-today upkeep and running maintenance like filling topping up of lubricants, changing filters, etc. including repair of self-starter, batteries and dynamo of these cranes shall be responsibility of the contractor. If on checking it is found that the same is not followed, BHEL shall exercise its right to get the job/works done at the risk and cost of the contractor.

Common for above Sl. No. (a) & (b):- In case of breakdown of crane, contractor shall provide the necessary manpower for maintenance of the BHEL owned crane to maintenance agency (deployed by BHEL), failing to do so BHEL will get the job done at the risk and cost of contractor. BHEL may also provide cranes through crane hiring agencies in which case the day-to-day upkeep and running maintenance shall also be excluded from scope of contractor. The contractor shall arrange fuel for the operation of hired & BHEL owned cranes also.

2. Cl.4.2.2.16 e) of SCC Shall be read as

a. For BHEL's cranes 75 MT & above:- The operator, helper & maintenance personal (Engineer/Technician/OEM) for BHEL's cranes 75 MT & above capacity being provided by BHEL free of cost. Further fuel for operation of all BHEL cranes shall be provided by contractor without any extra cost.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - V: T&PS TO BE DEPLOYED BY BHEL ON SHARING BASIS

b. For BHEL's cranes below 75 MT capacity:- The operators for BHEL's cranes 75 MT below capacity shall be provided by the contractor free of cost. These operators should possess valid license for heavy vehicle. Further fuel for operation of all BHEL cranes shall be provided by contractor without any extra cost.

3. The Cranes at SI No 1 & 2 will be provided as per requirement & availability for special package handling only at the sole discretion of the BHEL Engineer.
4. The contractor shall make necessary arrangement like lying of special sleeper beds, assembly & dismantling of heavy lift attachment, boom, jib etc. for movement and operation of crane.
5. Other T&P mentioned above, contractor shall transport from BHEL stores, install, operate, carry out maintenance, dismantle after use and return to BHEL stores. Cranes provided by BHEL will be on sharing basis with other agencies / contractors of BHEL. The allocation of cranes shall be the discretion of BHEL engineer, which shall be binding on the contractor. Cranes will be deployed at appropriate time as decided by BHEL for suitable duration and intended purpose. Augmentation of BHEL T & P under special circumstances shall be discretion of BHEL.

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CHAPTER - VI: TIME SCHEDULE

6.0 TIME SCHEDULE

6.1 INITIAL MOBILIZATION

PART-A & B:

After receipt of LOI, contractor shall discuss with Project Manager / Construction manager regarding initial mobilization. Contractor shall mobilize necessary resources within **15 days of issue of LETTER OF INTENT** or as per the directive of BHEL. Such resources shall be progressively augmented to match the schedule of milestones and commissioning. However, BHEL Engineer will certify the actual date of start of work after adequate mobilization of manpower, material handling equipment and other T&P by the contractor.

6.2 AUGMENTATION OF MOBILISATION

PART-A:

Contractor shall subsequently augment his resources in such a manner that daily errands/activities shall be completed on daily basis and the entire work is completed within the time schedule/contract period. Mobilization of contractor's resources shall be made and augmented from time to time in such a manner that the work in scope is carried out in an uninterrupted manner.

PART-B:

The contractor shall have to subsequently augment his resources in such a manner that the entire facility for Weigh Bridge is ready for BHEL's use within **TWO MONTHS**.

6.3 CONTRACT PERIOD

PART-A

Major materials as covered within the scope of this tender are likely to be received in stages up to 52 months from the actual date of start of work. **The Contract period shall be considered as 52 (Fifty Two) months from "The Start of Contract Period"**.

PART-B

THE TOTAL CONTRACT PERIOD SHALL BE 30 MONTHS AND BE DIVIDED IN TWO PARTS AS UNDER:

(a) INSTALLATION PERIOD:

THE INSTALLATION PERIOD OF 2 MONTHS IS PROVIDED FOR CONTRACTOR TO INSTALL & COMMISSION HIS EQUIPMENT, SET UP THE NECESSARY ESTABLISHMENT AND MAKE OPERATIONAL ALL HIS FACILITIES FOR RENDERING THE SERVICE.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - VI: TIME SCHEDULE

(b) OPERATION PERIOD:

THE OPERATION PERIOD SHALL BE 28 MONTHS FROM THE DATE OF DECLARING THE FACILITIES OF CONTRACTOR AS "OPERATIONAL" AS PER RELEVANT CLAUSE.

- 6.4 If work is not completed within contract period the same may be extended at the discretion of BHEL.
- 6.5 The scope of work under this contract is deemed to be completed, when so certified by the Engineer.

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CHAPTER - VII: TERMS OF PAYMENT

7.0 TERMS OF PAYMENT

- 7.1 The 'Engineer' will certify regarding the actual work executed in the measurement books and bills, which shall be accepted by the contractor in measurement book.
- 7.2 Contractor shall submit bills for the work completed under the specification, once in a month detailing work done during the month. The format for billing shall be approved by BHEL before raising invoices and payment shall be released within 30 days of receipt of Bill complete in all respect.
- 7.3 Shortage / damage reports on BHEL's standard materials management forms and No payment shall be released till the contractor submits these reports and are verified by the Engineer.
- 7.4 Subject to any deduction which BHEL may be authorized to make under the contract, the contractor on the certificate of the Engineer at site be entitled for payment as explained hereunder:-

PART A:

7.5 PAYMENT FOR T&P DEPLOYMENT (54.14 % of Lumpsum Price Quoted by Bidder)

1. Payment for the month as given in (c) below shall be paid on monthly basis on meeting the conditions (a) & (b) below:
 - a) If the all the cranes are available in working condition in line with clause no 4.0 of Chapter-IV.
 - b) If unloading of all the received materials in that billing month is completed.
 - c) **Monthly pro-rata payment for deployment of T & Ps** = The amount of Charges per month calculated as per RATE SCHEDULE of Price bid and value which comes for each item (crane / trailer) shall be the amount payable towards deployment of major T&Ps for each month.

Explanation: Monthly pro-rata payment for deployment of T & Ps as mentioned below

2. Monthly pro- rata payment for cranes/trailer

Sl. no	Crane / Trailer	The percentage of charges per month per item to be considered for the purpose of payment for the cranes and trailers deployed during the original & extended period of contract, if any.
1.	40 T Crane-I	0.712455 % of Lumpsum Price Quoted by Bidder.
2.	18/20 T Crane-I	0.245513 % of Lumpsum Price Quoted by Bidder.
3.	18/20 T Crane-II	0.245513 % of Lumpsum Price Quoted by Bidder.
4.	20T trailer	0.087118 % of Lumpsum Price Quoted by Bidder.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - VII: TERMS OF PAYMENT

7.6 If the clause 7.5.1 (a) above is not fully satisfied, then the payment shall be calculated as governed by the clause no 4.6 & 4.7 of Technical conditions of contract. **The deducted amount on this account shall not be paid back on any situation.**

7.7 **33.48 % of Lumpsum Price Quoted by Bidder will be paid per ton basis for Handling all items of Manufacturing Units, Chemicals, Structural steel, Reinforcement steel and Cement as below:**

The 'Rate per MT of materials' calculated as above shall be paid on completion of the activities mentioned in the following table on pro-rata basis.

Sl. No.	Description of Activity	% of Payment
1.	UNLOADING, SHIFTING TO OPEN/ COVERED STORES	30%
2.	UPDATION OF RECEIPT DETAILS, IN STORE MATERIAL REGISTERS/BHEL MM PACKAGE SYSTEM	15%
3.	STACKING AND VERIFICATION	15%
4.	UPDATION OF VERIFICATION DETAILS IN MATERIAL STOCK REGISTERS, SUBMISSION OF REPORTS AS PER SPECIFIED FORMATS FOR SHORTAGE/OPEN DELIVERY, LODGING OF POLICE REPORTS IF REQUIRED, DOCUMENTS FOR INSURANCE CLAIMS ETC, AND PREPARATION OF MATERIAL RECEIPT CERTIFICATES IN PRESCRIBED FORMATS WHERE EVER APPLICABLE	25%
5.	IDENTIFICATION OF MATERIAL IN READY TO LIFT POSITION FOR ISSUE TO BHEL/ERECTION AGENCY, AND UPDATION OF ISSUE DETAILS IN STORES RECORDS	12%
6.	COMPLETION OF CONTRACTUAL OBLIGATIONS (7.9)	3%
	Total	100%

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - VII: TERMS OF PAYMENT

- 7.8 **2.98 % of Lumpsum Price Quoted by Bidder will be paid per ton basis for Re-Shifting, Re-Stacking & Dispatch all items of Manufacturing Units, Chemicals, Structural steel, Reinforcement steel and Cement as below:**

The 'Rate per MT of materials' calculated as above shall be paid on completion of the activities mentioned in the following table on pro-rata basis.

Sl. No.	Description of Activity	% of Payment
1.	MATERIAL RE-SHIFTING & RE-STACKING	35%
2.	IDENTIFICATION OF MATERIALS, TAGGING, PACKING IF REQUIRED, PREPARATION OF GATE PASSES ETC	15%
3.	LOADING OF MATERIALS, INCLUDING T&P OF BHEL, INTO TRUCKS/CARRIERS AT SITE STORES/ERECTION SITE FOR ONWARD TRANSPORTATION TO OTHER DESTINATIONS, IF REQUIRED (TRANSPORTATION BY OTHER AGENCIES).	35%
4.	UPDATION OF STORE DOCUMENTS/BHEL MM PACKAGE SYSTEM	12%
5.	COMPLETION OF CONTRACTUAL OBLIGATIONS (7.9)	3%
	Total	100%

- 7.9 **OTHERS**

% from every RA Bill to be paid only after satisfactory completion otherwise Forfeited:

SL NO	Description of Activity	% of Payment
1.	Removal of grass/weeds and other plant growth in the store area	0.5%
2.	Housekeeping & cleaning of all closed sheds	0.5%
3.	Safety + Illumination	0.5%
4.	Preservation planned for month	0.5%

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER - VII: TERMS OF PAYMENT

5.	Implementation of E-stores for records/data and completion of monthly reconciliation.	1%
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PART B:

7.10 **9.39 % of Lumpsum Price Quoted by Bidder will be paid for services of Weigh Bridge:**

7.11 **TERMS OF PAYMENT FOR PROVIDING WEIGH SERVICE ONLY:-**

- i. 15% of the accepted lump sum price shall be paid on BHEL's certification of contractor's facilities as "Operational" for the service as per relevant clauses.
- ii. The balance 85% will be paid in 28 equal installments as regular monthly payment toward each completed month of service on providing satisfactory services and certification thereof by BHEL engineer.

7.12 BHEL shall not pay any charges other those specified in these specifications.

7.13 During the extended period of contract, services of Weigh Bridge shall be provided by the contractor as per the instruction of BHEL engineer. The monthly charges towards services of Weigh Bridge shall be- made on pro-rata basis for the utilized number of days at the monthly awarded rates derived as per SI no 7.11(ii)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - VIII: TAXES AND OTHER DUTIES

8.1.1	<p>Price quoted should be inclusive of all applicable Taxes/charges but Excluding GST. The Contractor shall pay all other taxes, fees, royalty, commission etc. which may be levied on the contractor in executing the contract. In case BHEL is forced to pay any of such taxes, it shall be recovered from Contactor's bills or otherwise as deemed fit.</p> <p>GST Shall be payable extra as per following :</p>
8.1.2.	Contractor/Vendor has to issue invoice indicating HSN/SAC code, Description, Value, Rate, applicable tax and other particulars in compliance with the provisions of relevant GST Act and Rules made thereunder. With the implementation of e way bill provisions, contractor shall comply with same as applicable.
8.1.3	Vendor has to submit GST compliant invoice within seven days from the due date of invoice as per GST Law. In case of delay, BHEL reserves the right of denial of GST payment if there occurs any hardship to BHEL in claiming the input thereof. In case of goods, vendor has to provide scan copy of invoice & GR/LR/RR to BHEL before movement of goods starts. Special care should be taken in case of month end transactions.
8.1.4.	<p>GST amount claimed in the invoice shall be released on fulfilment of all the following conditions by the Contractor : -</p> <ol style="list-style-type: none"> a. Supply of goods and/or services have been received by BHEL. b. Original Tax Invoice has been submitted to BHEL. c. Respective invoice has appeared in BHEL's GSTR - 2A for the month corresponding to the month of invoice. Alternatively, BG of appropriate value may be furnished which shall be valid at least one month beyond the due date of confirmation of relevant payment of GST on GSTN portal or sufficient security is available to adjust the financial impact in case of any default by the contractor.
8.1.5	TDS under GST law as applicable shall be deducted.
8.1.6	Contractor shall be solely responsible for discharging his GST liability according to the provisions of GST Law and BHEL will not entertain any claim of GST/interest/penalty or any other liability on account of failure of contractor in complying the provisions of GST Law or discharging the GST liability in a manner laid down thereunder
8.1.7	In case declaration of any invoice is delayed by the vendor in his GST return or any invoice is subsequently amended/altere/deleted on GSTN portal which results in any adverse financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Contactor's due payment.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - VIII: TAXES AND OTHER DUTIES

8.1.8	Any denial of input credit to BHEL or arising of any tax liability on BHEL due to non-compliance of GST Law by the Contractor in any manner, will be recovered along with liability on account of interest and penalty (if any) from the payments due to the Contactor.
8.1.9	The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract is limited to direct transactions between BHEL & its Contractor. BHEL is not responsible for any liability that may arise due to any transaction beyond the direct transaction between BHEL & its Contractor.
8.1.10	<p><u>Variation in Taxes & Duties:</u></p> <p>Any upward variation in GST shall be considered for reimbursement provided supply of goods and services are made within schedule date stipulated in the contract or approved extended schedule for the reason solely attributable to BHEL. However downward variation shall be subject to adjustment as per actual GST applicability.</p> <p>In case the Government imposes any new levy/tax on the output service/goods after price bid opening, the same shall be reimbursed by BHEL at actual. The reimbursement under this clause is restricted to the direct transaction between BHEL and its contractor only and within the contractual delivery period only.</p> <p>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/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of price bid. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.</p>
8.1.11	<p><u>Modalities of Tax Incidence on BHEL:</u></p> <p>Where GST law permits more than one option or methodology for discharging liability of tax/levy/ duty; the contractor shall approach BHEL before choosing any option to discharge his tax liability. BHEL shall have the right to direct the contractor to adopt the appropriate option considering the amount of tax liability on BHEL as well as procedural simplicity with regard to assessment of the liability.</p> <p>The option chosen by BHEL shall be binding on the contractor for discharging the obligation of BHEL in respect of the tax liability to the contractor.</p>

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - VIII: TAXES AND OTHER DUTIES

8.2	BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996 (BOCW Act) AND RULES OF 1998 READ WITH BUILDING & OTHER CONSTRUCTION WORKERS CESS Act, 1996 & CESS RULES, 1998.
	In case any portion of work involves execution through building or construction workers, then compliance to the above titled Acts shall be ensured by the contractor and contractor shall obtain license and deposit the cess under the Act. In the circumstances it may be ensured as under:-
8.2.1	It shall be the sole responsibility of the contractor in the capacity of employer to forthwith (within a period of 15 days from the award of work) apply for a licence to the Competent Authority under the BOCW Act and obtain proper certificate thereof by specifying the scope of its work. It shall also be responsibility of the contractor to furnish a copy of such certificate of licence / permission to BHEL within a period of one month from the date of award of contract.
8.2.2	It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under these act and rules including that of payment / deposit of 1% cess on gross payment made for value of work involving building or construction workers engaged by the contractor within a period of one month from the receipt of payment.
8.2.3	It shall be the responsibility of the sub-contractor to furnish the receipts /challans towards deposit of the cess together with the number, name and other details of beneficiaries (building workers) engaged by the sub-contractor during the preceding month.
8.2.4	It shall be the absolute responsibility of the sub-contractor to make payment of all statutory payments & compensations to its workers including that is provided under the Workmen's Compensation Act, 1923.
8.2.5	The contractor shall, however ensure before deposit of any BOCW Cess, that customer is not depositing the same in order to avoid excess deposit of cess.
8.2.6	The contractor shall bear cost of BOCW cess either by way of deposit or through recovery by BHEL in case the same is deposited by the customer.
8.2.7	In case of failure in above mentioned compliances, BOCW Cess @ 1% as well as applicable penalty as specified in BOCW Act/Rules shall be deducted from the contractor.

Notes

1	The Gross amount is to be construed as cost of construction in line with the provisions of the BOCW of the BOCW Cess act and in case of compliance by customer by way of deduction at source in line with clause No 3(2) of the act an equitable adjustment to the relatable cost of construction attributable to the bidder shall be made in terms of clause no 8.2 of TCC
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TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER - VIII: TAXES AND OTHER DUTIES

2	In case compliance by customer by way of deduction at source in line with clause no 3(2) is not resorted to, the compliance of BOCW Cess act shall be ensured by the bidder in line with the provisions of BOCW Cess act in terms of clause no 8.2.2 of TCC
3	The bidder may consider the cost of construction for levy of BOCW Cess inclusive of GST, however, due to whatsoever reason if the GST does not form the cost of construction for levy of aforesaid Cess an equitable adjustment thereof shall be made to the contract price.

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CHAPTER - IX: OTHERS

- 9.1 The intent of specification is to provide material handling and materials management services according to the most modern and proven techniques and codes. The omission of specific reference to any method, equipment or materials necessary for proper and efficient unloading, transportation, verification, stacking & preservation etc. shall not relieve the contractor of the responsibility of providing such facilities to complete the work without any extra compensation.
- 9.2 The work shall be executed under usual conditions affecting major SUPER THERMAL POWER PROJECTs in an existing power plant and in conjunction with numerous other operations at site. The contractor and his personnel shall cooperate with personnel of customer's contractors, coordinating his work with others and proceed in a manner that shall not delay or hinder the progress of work as a whole.
- 9.3 All the work shall be carried out as per the instructions of BHEL engineer. BHEL engineer's decision regarding correctness of the work and method of working shall be final and binding on the contractor.
- 9.4 The contractor shall perform all required services which may not be specified herein but nevertheless required for the completion of work within quoted rates.
- 9.5 All necessary certificates and licenses required to carry out this work are to be arranged by the contractor expeditiously.
- 9.6 All cranes, transport equipments, handling equipment, tools, tackles, fixtures, equipment, manpower, supervisors/engineers, consumables etc required for this scope of work shall be provided by the contractor.
- 9.7 All expenditure including taxes and incidentals in this connection will have to be borne by the contractor unless otherwise specified in the relevant clauses elsewhere in these specifications. The contractor's quoted rates shall include all such contingencies. In this connection refer relevant clause of general conditions of contract.
- 9.8 The contractor shall perform all required services which may not be specified herein but nevertheless required for the completion of work within quoted rates.
- 9.9 The distances indicated in these specifications are only approximate. However, the tenderers should assess the various distances and site conditions by visiting site before submitting their offer. No additional/extra claims for any variation in this regard will be entertained.
- 9.10 Contractor shall arrange for cutting and removal of vegetation growth/grass etc in the storage yard as and when called for by BHEL as incidental to work. BHEL will take

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - IX: OTHERS

appropriate action at the risk & cost of the contractor in case of failure in this regard. Contractor shall use latest available methodology to ensure removal of vegetation.

9.11 If the contractor or his workmen or employees break, deface, injure or destroy any part of a building, road, kerbs, fence, enclosures, water pipes, cables, drains, electric or telephone posts or wires, trees or any other property or to any part of erected equipments, stored components etc. Within the project premises or outside the contractor shall make the same good at his own expenses.

9.12 Sleepers will be taken back by contractor after the completion of contract period on “as is where is” basis.

9.13 Housekeeping of closed sheds are also included in the scope of work. Contractor shall carry out the housekeeping works on regular intervals (once a week).

9.14 Fabrication & placement of racks in close sheds is the part of this tender, for fabrication of racks BHEL will provide the steel on free of cost.

9.15 **OVERRUN COMPENSATION (Clause no. 2.12 of GCC)**

Overrun compensation shall be applicable only for the rates as calculated in clause 7.7, and 7.8 only of Technical Conditions of Contract.

9.16 **PRICE VARIATION (Clause no. 2.17 of GCC)**

PVC will be applicable only for **Sl. No. A of RATE SCHEDULE**.

9.17 **PERFORMANCE GUARANTEE (Clause no. 2.24 of GCC)**

Irrespective of provisions in tender elsewhere, in view of nature of work, performance guarantee is not required under this contract.

9.18 **RETENTION AMOUNT (Clause no. 2.22.2 of GCC)**

100% of Retention amount shall be refunded along with final bill payment.

9.19 **HSE& OHSAS:**

The contractor shall comply with the requirements / stipulations of **Chapter-IX** of SCC towards Health, Safety and Environment.

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CHAPTER - X: ANNEXURES

ANNEXURE – I

GENERAL IDEA OF WEIGHTS TO BE HANDLED

The information given below is very tentative and not complete. Only a few of the typical components are listed below to give a general idea to the bidder. The weights and sizes indicated below are only approximate and are liable to vary.

10.A.	Approximate total weight of material	85725 MT	
i.	Manufacturing Units, Chemicals	19,911 MT	
ii.	Structural Steel, Reinforcement steel	24,870 MT	
iii.	Cements in bag	33,151 MT	
iv.	Re-Shifting, Restacking & Dispatch of Plant Material, Structural Steel, Reinforcement steel	4,478 MT	
v.	Re-Shifting, Restacking & Dispatch of Plant Cement	3,315 MT	
10.B.	General idea of some major components (Single Piece) to be handled under this package.		
S.No.	Description	Approx. Gross Wt./Piece (MT)	Approx. dimensions of Packages (LxWxH)
1.	HP Turbine	128	
2.	IP Turbine	179	
3.	LP Turbine Rotor	63	
4.	Generator stator	316	
5.	Generator rotor	86	
6.	Front water box(Gen.)	34	
7.	Front water box(Tur.)	33	

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CHAPTER - X: ANNEXURES

8.	Rear water box(Gen.)	22	-
9.	Rear water box(Tur.)	22	
10.	Generator Transformer	200	

NOTES:-

1. The weight mentioned above is approximate and liable to vary as per design consideration of the manufacturing unit.
2. The payment will be made at the quoted / accepted rates for the tonnage actually handled.
3. The list is only illustrative and not exhaustive.

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CHAPTER - X: ANNEXURES

ANNEXURE-II

TECHNICAL SPECIFICATION OF WEIGH BRIDGE

S. No.	PARTICULARS & BHEL SPECIFICATION	
10.C	CONFIGURATION	
10.C.1	Construction	Pit Less Type
10.C.2	Weighing Capacity	100 metric ton (10000 kg)
10.C.3	Platform Size (minimum)	20 m x 3.5 m
10.C.4	Platform height from ground level	Bidder to Specify
10.C.5	Ramp inclination ratio	Bidder to Specify
10.C.6	Mechanism / Principle	Electronic with Load Cells
10.C.7	No. of Load Cells	Minimum 8 Nos. Bidder to Specify
10.C.8	Weight Indication	Digital Indication System
10.D	BASIC DESIGN & CONSTRUCTIONAL FEATURES	
10.D.1	The basic design shall be suitable for electronic measuring system using load cells and digital indication system.	
10.D.2	The measuring accuracy shall be as per Class III Accuracy and abided by Indian Weights & Measures Act.	
10.D.3	The weigh bridge shall be of free motion strut mounted type construction.	
10.D.4	For a better and balanced weighing, the load cell should be suitably arranged for supporting the platform. Vendor to confirm and give details.	
10.D.5	The platform structure shall be fabricated type with welded rolled steel sections and plates of reputed make like SAIL, JINDAL, TISCO, etc. Bidder has to submit the details on the platform construction with outline drawings and material used, along with the offer. Thickness of Plate used for the platform to be specified.	
10.D.6	The fabricated platform structures are to be shot blasted prior to painting and finished with primer and epoxy coating of required Dry Film Thickness (DFT). Bidder to give details on paints applied and DFT.	
10.D.7	The platform plates are to be provided with anti-skid ribbing or made of checkered plates.	
10.D.8	Bolt on type side railing with brackets are to be provided for the platform.	
10.D.9	Stoppers or bumpers are to be provided in longitudinal and transverse directions.	

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CHAPTER - X: ANNEXURES

S. No.	PARTICULARS & BHEL SPECIFICATION	
10.D.10	The design of the weigh bridge shall be such that all the load cells can be accessed easily during maintenance/ breakdown.	
10.D.11	The weigh bridge indicator cum display system shall be compatible with a PC, for taking print outs, data entry to hard disk of the PC and giving connectivity to external IT network system through suitable and reliable communication cables and ports.	
10.E	LOAD CELL DETAILS	
10.E.1	Rated Capacity of each Load Cell (metric ton)	Bidder to Specify
10.E.2	Type of Load cell	Compression type Bidder to specify and give complete details
10.E.3	Load cell technology	Analog / Digital Bidder to Specify and give complete details
10.E.4	Make & Model no.	Bidder to Specify
10.E.5	Accuracy Level	In the order of 0.02% Bidder to Specify
10.E.6	Electrical Input Supply [Minimum & Maximum]	Bidder to Specify
10.E.7	External Communication	Bidder to Specify
10.E.8	Output Resolution	Bidder to Specify
10.E.9	Output Update Rate	In the order of 10 readings per second. Bidder specify
10.E.10	Repeatability	Bidder to Specify
10.E.11	Overload Rating (Safe)	Not less than 125% of rated capacity. Bidder to Specify
10.E.12	Overload Rating (Ultimate)	Not less than 250% of rated capacity. Bidder to Specify
10.E.13	Sensitivity in mV/V	2.0 ± 0.1%
10.E.14	Operating Temperature Range	10 °C to 50 °C
10.E.15	Temperature Effect on Sensitivity	Bidder to Specify

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - X: ANNEXURES

S. No.	PARTICULARS & BHEL SPECIFICATION	
10.E.16	Temperature Effect on Zero Balance	Bidder to Specify
10.E.17	Protection Class	IP 67/IP 68
10.E.18	Citation (For Test Certificate)	OIML R60
10.E.19	Creep in 30 min.	Bidder to Specify
10.E.20	Shall be unaffected by 'off-centre' loads	
10.E.21	Canister design to be strong enough to withstand wear, tear and accidental damage due to harsh usage	
10.E.22	Shall be hermetically sealed	
10.E.23	Shall be provided with automatic diagnostics	
10.E.24	Shall withstand hostile conditions due to extreme temperatures, lightning, wind, shock and vibration	
10.E.25	Shall be provided with over load protection	
10.E.26	Shall be provided with 'low torque' anti rotation load button	
10.E.27	Shall be provided with waterproof connectors	
10.E.28	Test Certificate for Load Cell's Accuracy Test conducted from reputed laboratory is required	
10.F	DIGITAL INDICATION SYSTEM	
10.F.1	Make & Model no.	Bidder to specify
10.F.2	Processor	Micro Processor based [Bidder to specify make and model]
10.F.3	Processor Clock	Bidder to specify
10.F.4	Real Time Clock	On Board Battery Backed
10.F.5	Memory	For data storage, capable of storing around 1500 weighment records with battery back up. Bidder to specify the memory storage capacity.
10.F.6	Power Supply	Switched Mode Power Supply
10.F.7	Input Voltage	230 V AC, 50 Hz
10.G	Protection	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - X: ANNEXURES

S. No.	PARTICULARS & BHEL SPECIFICATION	
10.G.1	Fuse of suitable rating for It AC Mains.	Bidder to specify
10.G.2	Input Line Filter for EMI and RFI Sions.	Bidder to confirm
10.G.3	SupressSpike Suppressors for input transits.	Bidder to confirm
10.G.4	High voltage protectors.	Bidder to confirm
10.G.5	Degree of Resistance to dirt and moisture.	Vendor to specify the IP (Ingress Protection) number
10.G.6	Splash proof keypad	Bidder to specify
10.G.7	Power Consumption (Watts)	Bidder to specify
10.G.8	A/D Conversion	Bidder to furnish details
10.G.9	Load Cell Excitation	Bidder to furnish details
10.G.10	Repeatability	± 0.01% of Full Scale
10.G.11	Display	A suitable Illuminated Display (with Backlight) for displaying numerals as well as alphabets, at any time.
10.G.12	Remote Display	Remote Display port to indicate weight on the platform
10.G.13	Reading Capacity of Display unit 5.16 Features Configurable Decimal points	Minimum 80 metric ton (i.e. 20 metric ton above the rated capacity of the weigh bridge) Vendor to specify
10.G.14	Features	<ul style="list-style-type: none"> Configurable Decimal points Flicker free display of weight Configurable Zero tracking Over & Under Range Indication Character height (mm) Number of digits Vendor to specify
10.G.15	Printer Port	Compatible for connecting dot matrix/laser printer for printing of weighment of records and reports.

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CHAPTER - X: ANNEXURES

S. No.	PARTICULARS & BHEL SPECIFICATION	
10.G.16	Serial Port / Ethernet	RS-232 Serial Port for computer interfacing or driving remote display and provision of Ethernet to Net Connectivity. Vendor to specify.
10.H	Computer and Printer	
10.H.1	Computer installed with Windows Operating System, Keyboard, Mouse and Printer will be arranged by BHEL. Vendor to specify the configuration details like OS version, Size of RAM and HDD, type of printer required etc.	
10.H.2	LAN connection with BHEL site office.	
10.I	WEIGHBRIDGE SOFTWARE	
10.I.1	The OFFER shall also include the SOFTWARE required to integrate the function of the Hardware with Operations of the Weigh-Bridge offered. Bidder to specify the software capability to interface with SAP or other software at BHEL. NOTE: Bidder to list down the technical features / functions of the SOFTWARE in detail.	
10.I.2	Software for SMART CALIBRATION (minor weigh correction by software) shall be provided by the vendor. In addition to Software for pre-start data entry for loading details, date & time, location, etc. Bidder to specify.	
10.J	PRINT-OUT FIELD	
10.J.1	The print out slip should contain the following details:- a) BHEL Logo b) Ticket number and Date auto generated c) Vehicle Registration Number up to 25 space alphanumeric and special characters d) Tare Weight, Net Weight, Gross Weight -in kg e) Date (DD/MM/YYYY) & Time (hh:mm:ss 24 hour format) of each Weighment f) Item Particulars / Description minimum 32 characters comprising of space, alpha numeric and special characters mode. g) Address of Transporter with Phone Number 50 characters. h) Invoice number (manually entered) comprising of alphanumeric, space and special characters. i) Stores Dept. Code Number, Designation of persons for Weighing and Authority, etc. in a PRINTABLE FORMAT To be discussed in detail at the time of order finalization.	
10.J.2	Report generation	Date wise, Vehicle wise, sorting data based on print out fields. Bidder to specify

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - X: ANNEXURES

S. No.	PARTICULARS & BHEL SPECIFICATION	
10.K	Hardware	The Bidder has to list down the Hardware required to be supplied to assure the specified functions from the weigh bridge offered.
10.L	Additional Features	Bidder to list down the list of additional features available in the OFFERED Weight Bridge & Control Unit.
10.M	LIGHTING SYSTEM	
10.M.1	A spot light with sufficiently long cable shall also be provided for 24 V AC supply	
10.N	UN-INTERRUPTED POWER SUPPLY UNIT (UPS)	
10.N.1	UPS of suitable rating with maintenance free dry batteries shall be provided for operations lasting over three continuous hours.	
10.N.2	Make. : APC / MICROTEK / AMARON or any other reputed make acceptable to BHEL	
10.N.3	Model & Rating (kVA): Bidder to specify	
10.N.4	Catalogue of the UPS and battery shall be submitted with the Technical Offer.	
10.N.5	Spares Package for the UPS for 2 years working also shall be offered.	
10.O	IMPORTANT POINTS	
10.O.1	Single Phase AC (3 wire system) 230V \pm 10%, 50 Hz \pm 1.5 Hz, Power Supply Source will be provided by BHEL at a single point near the weighing machine, as per the layout recommended by Vendor. All types of cables, connections, circuit breakers etc. required for connecting BHEL's power supply point to different parts of the machine/control cabinets, shall be the responsibility of vendor.	
10.O.2	All electrical equipment shall be tropicalized and shall have IP 54 degree of protection	
10.O.3	All electrical control cabinets & panels should be dust and vermin proof	
10.O.4	Vendor should ensure the proper Earthing for the machine and its accessories. Bidder has to ensure the works relating to the running of earth flat from all the load cells used, and connecting to the common earth pit provided for the subject weigh bridge. This complete work is under the scope of the Bidder.	
10.P	ENVIRONMENTAL PERFORMANCE OF THE MACHINE	
10.P.1	The machine shall be suitable for an ambient temperature of around 50 Deg C and relative humidity of 95% respectively, but both do not occur simultaneously.	
10.P.2	Weather conditions are extreme type, Atmosphere will be dust laden during dome part of the year.	
10.P.3	Paint of the machine shall be weather resistant and shall not peel off due to weathering.	
10.P.4	Vendor to ensure that the Thermal Stability of the complete machine to be designed keeping in view the specified Ambient Conditions and accuracy requirements of BHEL for trouble free operation of the weighing machine.	
10.P.5	If any safety / environmental protection enclosure is required it shall be built in the weighing machine by the vendor.	

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CHAPTER - X: ANNEXURES

S. No.	PARTICULARS & BHEL SPECIFICATION
10.Q	MACHINE SPARES
10.Q.1	Load Cell 2 nos.
10.Q.2	Digital Indicating System 1 set. Remote Display Unit 1 No. Itemized break up of mechanical and electrical spares used on the machine in sufficient quantity as per recommendation of Vendor for 2 years of trouble free operation on two shifts continuous running basis should be offered by vendor. Unit Price of each item of spare shall be offered.
10.Q.3	Electrical: All types of Relays/Contactors/Push Buttons, Indicating Lamps/Fuses, and PCBs shall be quoted.
10.Q.4	All types of spares for total machine and accessories should be available for at least ten years after supply of the weighing machine.
10.R	DOCUMENTATION
10.R.1	THREE sets of following documents (Hard Copies) in English language shall be supplied along with machine
10.R.2	Operating Manuals of Weighing Machine and Indicator System
10.R.3	Programming Manuals for the Weighing Machine
10.R.4	Detailed Maintenance Manual (for troubleshooting and service) of machine with all drawings of machine assemblies/sub-assemblies/parts including Electrical / Mechanical and Instrumentation circuit diagrams. Technical Manual & Data sheet for Load cell, Indicating system and other components
10.R.5	Complete back up of hard disk / software on GHOST CD and clear written Instructions (3 copies) to take back-up and reloading of a new hard disk.
10.R.6	One additional set of all the above documentation on CD ROM, wherever possible.
10.S	MACHINE FOUNDATION
10.S.1	Vendor shall submit the preliminary layout drawing for getting BHEL's approval within FOUR WEEKS from the date of issue of BHEL Purchase Order. Vendor shall submit complete foundation details including static and dynamic loads within a month after getting BHEL's approval. The layout should consist of all requirements pertaining to complete weighing machine including control room.
10.T	INSPECTION & MACHINE ACCEPTANCE
10.T.1	Pre dispatch inspection Machine shall be offered for inspection by BHEL engineers at vendor's works. Vendor to confirm Vendor to give details on MACHINE INSPECTION Tests to be performed by Vendor at Vendor's works, on the machine, before dispatch.
10.T.2	Full load test to demonstrate the maximum capacity of the weighing machine. (If possible)
10.T.3	Demonstration of all features of the weighing machine, indicator system & accessories
10.T.4	Travel, board & lodging for the BHEL Engineers who will be visiting vendor's works for re-dispatch inspection shall be borne by BHEL. Vendor to note Tests / Activities to be carried out by Vendor at BHEL site commissioning of machine.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER - X: ANNEXURES

S. No.	PARTICULARS & BHEL SPECIFICATION
10.T.5	Accuracy, Repeatability, Safe Over Load Testing, Communication Connectivity and tests recommended by the Vendor

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - XI: RATE SCHEDULE

RATE SCHEDULE BREAK-UP

A. Material Handling						
Sl.No.	Particulars at KHURJA					
	Description	Qty.(IN MT)	Allocation of Lumpsum Price Quoted by Bidder			
A.1	For Handling all items of Manufacturing Units, Chemicals	19911	11.450%			
A.2	For Handling all items of Structural steel, Reinforcement steel	24870	10.883%			
A.3	For handling of Cement	33151	11.150%			
A.4	Reshifting, Restacking & Dispatch of Plant Material, Structural Steel, Reinforcement Steel	4478	2.057%			
A.5	Reshifting, Restacking & Dispatch of Cement	3315	0.923%			
		TOTAL (A)	36.464%			
B. T&P Deployment						
Sl No.	Major T&P requirement for KHURJA	Deployment period (months)	Allocation of Lumpsum Price Quoted by Bidder			
B.1	40 T Crane (1 no)	40	21.114%			
B.2	18 T Hydra Crane I (1 no)	52				
B.3	18 T Hydra Crane II (1 no)	34				
B.4	20 T trailer (1 nos)	52	4.530%			
		TOTAL (B)	54.142%			
C. Weigh Bridge						
Sl No.	Major T&P requirement for KHURJA	Deployment period for Khurja months	Allocation of Lumpsum Price Quoted by Bidder			
C.1	Weigh Bridge	30	9.394%			
		TOTAL (C)	9.394%			
Total (A +B+ C)			100%			
D. MATERIAL MANAGEMENT						
Sl No.	Major Manpower requirement for KHURJA	Deployment period man-months	Rates as per Government of India Ministry Of labour & Employment office New Delhi(As Per THDC circular) Dt.23/09/2019* (M)	Factor of Special Allowance (Fixed) (N)	Minimum Wages Per day (Rs.) MxN	MONTHLY RATE (IN RS.)

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CHAPTER - XI: RATE SCHEDULE

D.1	Skilled	96	569	1.2958	737	19,170
D.2	Semi-Skilled	96	472	1.2958	611	15902
D.3	Unskilled	192	403	1.2958	522	13,577

Factor of Special Allowance = Factor(X): Certain additional allowances are added extra to the wages of labour (,i.e. only on labour component in the work item) in the form of percentage, as recommended by the Government due to statutory and other provisions. 1.2958 factor can be used for covering PF, ESI, BONUS, LEAVE WITH WAGES, UNIFORM ALLOWANCE, PETTY CONTRACTOR PROFIT ETC.(PF:-13.00%, ESI:-3.25%, BONUS:-8.33%, Petty contractor Profit and Miscellaneous 5%)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - XIII: NTPC SAFETY RULES

UNPRICED RATE SCHEDULE

DESCRIPTION OF WORK	TOTAL VALUE (in Rupees) “X” (TOTAL FOR SECTION A + B+ C)
<p>Total Price (X) as per Tender Specification for</p> <p>“PART-A:- THE WORK FOR RECEIPT OF MATERIALS, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION AND HANDING OVER OF PLANT AND OTHER MATERIALS OF TG, ELECTRICAL, ASSOCIATED AUXILIARIES, CHEMICALS, CEMENT, SHOP FABRICATED STRUCTURAL STEEL & REINFORCEMENT STEEL AND PROVIDING SERVICES FOR MATERIALS MANAGEMENT AND PART-B:- PROVIDING SERVICES OF PIT-LESS WEIGH-BRIDGE OF 100 MT CAPACITY OF SIZE 20 M X 3.5 M ON BUILD, OWN AND OPERATE BASIS.”</p> <p>Note: Bidders need to quote the LUMPSUMP PRICE (X) only (EXCLUSIVE of PRICE FOR MATERIAL MANAGEMENT SERVICES SECTION D) & rate of all other items are fixed based on formula.</p>	

Note:

1. The quantities indicated against each item of rate schedule break-up are tentative and liable to vary depending upon site requirement. The contractor has to handle all items indicated by BHEL Engineer for achieving completion of work. Total payment made to contractor shall be on the basis of actual quantity handled as per certification of BHEL.
2. Incomplete offer received may not be considered for the subject work.
3. The Rate shall be entered in figures as well as in words. In case of difference in rates between words and figures THE LESSER OF THE TWO will be treated as valid rate. In case of omission in quoting any rate, the evaluation will be done considering the highest quoted rate obtained against that item but the work, if awarded, will be on the lowest quoted rate obtained against that item.
4. The rates of different items for the entire scope shall be worked out & awarded as per “Annexure-A”.
5. Bidders need to quote the LUMPSUMP PRICE (X) only (EXCLUSIVE of PRICE FOR MATERIAL MANAGEMENT SERVICES SECTION D) & rate of all other items are fixed based on formula.
6. Total Contract Value shall be treated as Price (X) plus (+) Value of Section ‘D’.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER - XIII: NTPC SAFETY RULES

NTPC Safety Rules for Construction and Erection of Power plants (Enclosed as separate attachment)

BHEL, PS-NR: NOIDA PRICE BID (SCHEDULE OF RATES & QUANTITIES)						ANNEXURE-A
TOTAL LUMPSUMP PRICE TO BE FILLED BY BIDDER ("X")						"X"
WORDS(_____)						
SECTION A						
Sl no	Description of item	Quantity	UNIT	% Allocation of "X"	TOTAL (IN RS.)	UNIT RATE/MT (IN RS.)
Sub Section A (36.464 % of "X" PRICE)						
A.1	For Handling all items of Manufacturing Units, Chemicals	19911	MT	11.450%		
A.2	For Handling all items of Structural steel, Reinforcement steel	24870	MT	10.883%		
A.3	For handling of Cement	33151	MT	11.150%		
A.4	Reshifting, Restacking & Dispatch of Plant Material, Structural Steel, Reinforcement Steel	4478	MT	2.057%		
A.5	Reshifting, Restacking & Dispatch of Cement	3315	MT	0.923%		
Sub Total Section A				36.464%		
Section B						
Sl no	Description of item	Quantity	UNIT	Allocated % of "X"	Allocated Amount	Monthly Rate (In Rs) = (Allocated Amount / Quantity)
Section B (54.142 % of "X" PRICE)						
B.1	40 T Crane (1 nos)	40	MONTHS	28.4981832%		
B.2	18/20 T Crane (2 nos)	86	MONTHS	21.1140849%		
B.3	20 T trailer (1 nos)	52	MONTHS	4.5301280%		
Sub Total Section B				54.142%		
Section C (9.394 % of "X" PRICE)						
Sl no	Description of item	Quantity	UNIT	Allocated % of "X"	TOTAL (IN RS.)	
1	Providing services of Pit less weigh bridge of 100MT weighing capacity of size 20m X 3.5m on build,own and operate basis as per Technical Specification provided elsewhere in the tender for an overall contract period of 30 Months that includes 2 Months installation period and 28 Months operation period.	1	LUMPSUM	9.394%		
Sub Total Section C						
Section D (*)						
Sl no	Description of item	Deployment period man-months	Unit	Unit Rate in Rs.	Monthly Rate (Rs.)	TOTAL (IN RS.)
D.1	Skilled	96	Service	737.31	19,170	Rs. 18,40,325.76
D.2	Semi-Skilled	96	Service	611.62	15,902	Rs. 15,26,603.52
D.3	Unskilled	192	Service	522.2	13,577	Rs. 26,06,822.40
Sub Total Section D					Rs.	59,73,751.68
TOTAL PRICE (IN RUPEES) (SECTION. A + B + C + D)						
Note:	<p>(*)- MONTHLY UNIT RATES ARE BASED ON MINIMUM WAGES AS PER Government of India Ministry Of labour & Employment office New Delhi(As Per THDC circular) Dt.23/09/2019 AND THE SAME SHALL BE REVISED AS WHEN IT IS CHANGED. THE MINIMUM WAGES PER MONTH SHALL BE PAID AS PER THE RATE GIVEN IN CIRCULAR ISSUED BY THDC (KHURJA).</p> <p>(#)Bidders need to quote the LUMPSUMP PRICE only (EXCLUSIVE of PRICE FOR MATERIAL MANAGEMENT SERVICES SECTION D) & rate of all other items are fixed based on formula.</p>					