

## **E-TENDER SPECIFICATION**

| <b>Sl No</b> | <b>E-Tender Specification Number</b> |
|--------------|--------------------------------------|
| <b>1</b>     | <b>BHE/PW/PUR/TLRPT-ENB/2632</b>     |

Development of open storage yard of approx. 1,60,500 Sqm area including approach roads & drains, internal roads & drains, pipe culverts, fencing & gates, electrical illuminations, concrete sleepers, security cabin, first aid centre room, RO plant room, etc."

at

**2x660 MW NTPC Talcher TPS**

**VOLUME - I**

**FOR**

**VOLUME I - TECHNICAL BID**

**THIS TENDER SPECIFICATION CONSISTS OF:**

|                               |                                         |
|-------------------------------|-----------------------------------------|
| <b>Notice Inviting Tender</b> |                                         |
| <b>Volume-IA</b>              | <b>Technical Conditions of Contract</b> |
| <b>Volume-IB</b>              | <b>Special conditions of Contract</b>   |
| <b>Volume-IC</b>              | <b>General conditions of Contract</b>   |
| <b>Volume-ID</b>              | <b>Forms &amp; Procedures</b>           |
| <b>Volume II</b>              | <b>Price Bid</b>                        |

**Bharat Heavy Electricals Limited**



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

| CONTENTS  |                                                              |                                                                                                |
|-----------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Volume No | Description                                                  | Hosted in website bhel.com (Briefly) and detailed in BHEL e-Procurement Portal as files titled |
| NIL       | Tender Specification Issue Details                           | (Part of <b><u>Vol-IA-2632</u></b> )                                                           |
| NIL       | Notice Inviting Tender                                       | (Part of <b><u>Vol-IA-2632</u></b> )                                                           |
| I-A       | Technical Conditions of Contract                             | Vol-I-A-2632                                                                                   |
| I-B       | Special Conditions of Contract                               | Vol-I-BCD-2632                                                                                 |
| I-C       | General Conditions of Contract                               | (Part of Vol-I-BCD-2632)                                                                       |
| I-D       | Forms & Procedures                                           | (Part of Vol-I-BCD-2632)                                                                       |
| II        | Price Bid Specification as specified in E-Procurement Portal | Volume-II-2632                                                                                 |

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at

### **2x660 MW NTPC Talcher TPS**

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR                      Refer Notice Inviting Tender  
TENDER SUBMISSION

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

M/s. ....

.....

PLEASE NOTE:  
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

**GM (Purchase)**

Place: Nagpur

Date:

2632

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



**BHEL PSWR**  
**Notice Inviting Tender**

**E-Tender Specification No: BHE/PW/PUR/TLRPT-ENB/2632**

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**Ref: BHE/PW/PUR/TLRPT-ENB/2632**

**Date: 20/08/2022**

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

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

**To,**

Dear Sir/Madam,

**Sub : NOTICE INVITING E-TENDER**

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

**1.0 Salient Features of NIT**

| S No. | ISSUE                      | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
|-------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| i     | E-TENDER NUMBER            | BHE/PW/PUR/TLRPT-ENB/2632                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |
| ii    | Broad Scope of job         | Development of open storage yard of approx. 1,60,500 Sqm area including approach roads & drains, internal roads & drains, pipe culverts, fencing & gates, electrical illuminations, concrete sleepers, security cabin, first aid centre room, RO plant room, etc."<br>At<br><b>2x660 MW NTPC Talcher TPS</b>                                                                                                                                                                                                             |            |
| iii   | DETAILS OF TENDER DOCUMENT |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |
| A     | Volume-IA                  | Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc                                                                                                                                                                                                                                                                                                                                                             | Applicable |
| B     | Volume-IB                  | Special Conditions of Contract (SCC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Applicable |
| C     | Volume-IC                  | General Conditions of Contract (GCC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Applicable |
| D     | Volume-ID                  | Forms and Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Applicable |
| F     | Volume-II                  | Price Bid as specified in E-Procurement Portal                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Applicable |
| iv    | Issue of Tender Documents  | Tender documents will be available for downloading from BHEL website ( <a href="http://www.bhel.com">www.bhel.com</a> ) or e-procurement portal ( <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> ) as per schedule below:<br>Start :20/08/2022 , Time :17:00<br>Closes : 03/09/2022 , Time : 13:00<br>Brief information of the tenders shall also be available at central public procurement portal.<br>( <a href="https://eprocure.gov.in/epublish/app">https://eprocure.gov.in/epublish/app</a> ) | Applicable |
| v     | DUE DATE & TIME OF OFFER   | Date: 03/09/2022, Time: 13.00 Hrs<br>Place: on <b>E-Tender Portal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Applicable |

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| S No. | ISSUE                                                                     | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |
|-------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|       | <b>SUBMISSION</b>                                                         | <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |
| vi    | <b>OPENING OF TENDER (Techno-Commercial Bid)</b>                          | <p><b>Date: 03/09/2022, Time: 17.00 Hrs</b></p> <p>Notes:</p> <p>(1) In case the due date of opening of tender becomes a non-working day, then the due date &amp; time of offer submission and opening of tenders get extended to the next working day.</p> <p>(2) Bidder may depute representative to witness the opening of tender. For e-Tender, Bidder may witness the opening of tender through e-Procurement portal only.</p>                                                                                                                                                                                                                                                                                                                                                                                                                        | Applicable |
| vii   | <b>EMD AMOUNT</b>                                                         | <p><b>13,50,000/- (Rupees Thirteen Lakh Fifty Thousand Only)</b></p> <p><b>Important Note: Bidders kindly to take note that EMD (Earnest Money Deposit) shall be furnished by MSE bidders as well, as per the amount and procedure indicated in the NIT/GCC.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Applicable |
| viii  | <b>COST OF TENDER</b>                                                     | Free                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |
| ix    | <b>LAST DATE FOR SEEKING CLARIFICATION</b>                                | <p>One day before due date of offer submission.<br/>Along with soft version also, addressing to undersigned &amp; to others as per contact address given below:</p> <p>1) Name: Tapish Kumar<br/>Designation: Manager<br/>Deptt: Purchase<br/>Address: Floor no. 5 &amp; 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001<br/>Mobile-9010903666<br/>Email : <a href="mailto:tapishkhandelwal@bhel.in">tapishkhandelwal@bhel.in</a></p> <p>2) Mr. Kamlesh Kumar<br/>Designation: DGM<br/>Deptt: Purchase<br/>Address: Floor no. 5 &amp; 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001<br/>Email: <a href="mailto:kamleshbhel@bhel.in">kamleshbhel@bhel.in</a><br/>Mob: 9425554615</p> <p>3) Name: R. M. Malhotra<br/>Designation: GM<br/>Deptt: Purchase<br/>Address: Floor no. 5 &amp; 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001</p> | Applicable |
| x     | <b>SCHEDULE OF Pre Bid Discussion (PBD)</b>                               | 29/08/2022 14:00 Hrs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Applicable |
| xi    | <b>INTEGRITY PACT &amp; DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)</b> | <p>1) Shri Otem Dai, IAS (Retd.)</p> <p>2) Shri Bishwamitra Pandey, IRAS (Retd.)</p> <p>3) Shri Mukesh Mittal, IRS (Retd.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Applicable |

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| S No. | ISSUE          | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| xii   | Latest updates | Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage ( <a href="http://www.bhel.com">www.bhel.com</a> -->Tender Notifications →View Corrigendum), Central Public Procurement portal ( <a href="https://eprocure.gov.in/epublish/app">https://eprocure.gov.in/epublish/app</a> ) & on e-tender portal <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> and not in the newspapers. Bidders to keep themselves updated with all such information. |

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

For Electronic Fund Transfer the details are as below:-

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

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

**5.0 Procedure for Submission of Tenders:**

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

**Documents Comprising the e-Tender**

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

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

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

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

**b. Price Bid:**

- i. Prices are to be quoted in the attached Price Bid format online on e-tender portal.
- ii. The price should be quoted for the accounting unit indicated in the e-tender document.
- iii. Note: It is the responsibility of tenderer to go through the Tender document to ensure furnishing all required documents in addition to above, if any. Any deviation 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.

**DO NOT'S**

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

**Digital Signing of e-Tender**

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

**The Requirement:**

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

BHEL has finalized the e-procurement service Provider:-

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

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

**For any technical related queries, please call at 24 x 7 Help Desk Number**

**0120-4001 002**

**0120-4200 462**

**0120-4001 005**

**0120-6277 787**

**1. Peter Raj, NIC, Ph: 9942069052**

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

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

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

The contact details of the DSC certifying authority:-  
please refer <http://www.mca.gov.in/> → MCA SERVICES → DSC SERVICES

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

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

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

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

| Sl. no. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Remarks |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|         | <b>Part-I A</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |
|         | <del><b>ENVELOPE – I superscribed as:</b><br/>PART-I (TECHNO COMMERCIAL BID)<br/>TENDER NO:<br/>NAME OF WORK:<br/>PROJECT:<br/>DUE DATE OF SUBMISSION:<br/><br/><b>CONTAINING THE FOLLOWING:-</b></del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |
| i. —    | <del>Covering letter/Offer forwarding letter of Tenderer.</del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |
| ii. —   | <del>Duly filled in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.<br/><br/><b>Note:</b><br/>a. In case of any deviation, the same should be submitted separately for technical &amp; commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained.<br/>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.<br/>    i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL<br/>    ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</del> |         |
| iii. —  | <del>Supporting documents/ annexure/ schedules/ drawing etc. as required in line with Pre-Qualification criteria.</del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |

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|         |                                                                                                                                                                                                                     |               |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|         | It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph. no, FAX no, etc. |               |
| iv. —   | All Amendments/Correspondences/Corrigenda/Clarifications/Changes/Errata etc. pertinent to this NIT.                                                                                                                 |               |
| v. —    | Integrity Pact Agreement (Duly signed by the authorized signatory)                                                                                                                                                  | If applicable |
| vi. —   | Duly filled in annexures, formats etc. as required under this Tender Specification/NIT                                                                                                                              |               |
| vii. —  | Notice inviting Tender (NIT)                                                                                                                                                                                        |               |
| viii. — | Volume I A : <del>Technical</del> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc.                               |               |
| ix. —   | Volume I B : Special Conditions of Contract (SCC)                                                                                                                                                                   |               |
| x. —    | Volume I C : General Conditions of Contract (GCC)                                                                                                                                                                   |               |
| xi. —   | Volume I D : Forms & Procedures                                                                                                                                                                                     |               |
| xii. —  | Volume II (UNPRICED — without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item                                                                                                  |               |
| xiii. — | Any other details preferred by bidder with proper indexing.                                                                                                                                                         |               |

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

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

|  |                                                            |  |
|--|------------------------------------------------------------|--|
|  | <b>OUTER COVER</b>                                         |  |
|  | <b><u>ENVELOPE-IV (MAIN ENVELOPE / OUTER ENVELOPE)</u></b> |  |

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|   |                                                                                                                                                                          |  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|   | superscribed as:<br>TECHNO-COMMERCIAL BID, PRICE BID & EMD<br>TENDER NO:<br>NAME OF WORK:<br>PROJECT:<br>DUE DATE OF SUBMISSION:<br><br><b>CONTAINING THE FOLLOWING:</b> |  |
| i | <ul style="list-style-type: none"><li>○ Envelopes I</li><li>○ Envelopes II</li><li>○ Envelopes III</li></ul>                                                             |  |

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

- 7.0 Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.
- 8.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).
- 9.0 **Assessment of Capacity of Bidders:**
- A. Bidder's capacity for executing the job under tender shall be assessed 'LOAD' wise and 'PERFORMANCE' wise as per the following:
- I. **LOAD:** Load takes into consideration **ALL** the contracts of the Bidder under execution with BHEL Regions, irrespective of whether they are similar to the tendered scope or not. The cut off month for reckoning 'Load' shall be the 3<sup>rd</sup> Month preceding the month corresponding to the 'latest date of bid submission', in the following manner -  
(**Note:** For example, if latest bid submission is in Jan 2017, then the 'load' shall be calculated up to and inclusive of Oct 2016)

Total number of Packages in hand = Load (P)

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

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

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

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

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

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

**Aggregate of Performance scores for all similar packages in all the Regions**

**=** -----  
**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)   |

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

- 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:

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| Sl. no. | Overall Performance Rating<br>(R <sub>BHEL</sub> ) | Corresponding value of<br>'L' |
|---------|----------------------------------------------------|-------------------------------|
| 1       | =60                                                | NA                            |
| 2       | > 60 and ≤ 65                                      | 0.4                           |
| 3       | > 65 and ≤ 70                                      | 0.35                          |
| 4       | > 70 and ≤ 75                                      | 0.25                          |
| 5       | > 75 and < 80                                      | 0.2                           |
| 6       | ≥ 80                                               | NA                            |

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

**III. 'Assessment of Capacity of Bidder':**

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

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

**Note:**

- i). In case the value of  $P_{\text{Max}}$  results in a fraction, the value of  $P_{\text{Max}}$  is to be rounded off to next whole number
- ii). For  $R_{\text{BHEL}} = 60$ ,  $P_{\text{Max}} = '1'$
- iii). For  $R_{\text{BHEL}} \geq 80$ , there will be no upper limit on  $P_{\text{Max}}$

The Bidder shall be considered 'Qualified' as per 'Assessment of Capacity of Bidder' for the subject Tender if  $P \leq P_{\text{Max}}$

(Where P is calculated as per clause 'I' above)

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

**IV. Explanatory note:**

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

- ii). Identified Packages (Unit wise)

**Table-1**

|       |                    |            |
|-------|--------------------|------------|
| Civil | Electrical and C&I | Mechanical |
|-------|--------------------|------------|

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

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

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

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

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

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

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

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

- a) All the bidders having Overall Performance Rating ( $R_{BHEL}$ )  $\geq 60$  shall be considered qualified against criteria of ‘Assessment of Capacity of Bidders’.
- b) If even after using option “a”, the number of qualified bidders remains less than four, then in addition to bidders considered as per option “a”, “First timer” bidders having average of

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available performance scores  $\geq 60$  upto and including the Cut Off month shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.

- c) If even after using option "a" and "b", the number of qualified bidders remains less than four, then in addition to bidders considered as per option "a" and "b", "First timer" bidders for whom no performance score is available in the system upto and including the Cut Off month, shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.

**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 ( $R_{BHEL}$ )  $\geq 60$ , (b)- "First timer" bidders having average of available performance scores  $\geq 60$  upto and including the Cut Off month, (c)- "First timer" bidders for whom no performance score is available in the system upto and including the Cut Off month, shall be considered qualified against criteria of 'Assessment of Capacity of Bidders' for further processing of tender.

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

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

- vi). Contractor shall provide the latest contact details i.e. mail-ID and Correspondence Address to SCT Department, so that same can be entered in the Contractor Performance Evaluation System, and in case of any change/discrepancy same shall be informed immediately. Login Details for viewing scores in Contractor Performance Evaluation System shall be provided to the Contractor by SCT Department.
- vii). Performance Evaluation for Activity Month shall be completed in Evaluation Month (i.e. month next to Activity Month) or in rare cases in Post Evaluation Month (i.e. month next to Evaluation Month) after approval from Competent Authority. In case scores are not acceptable, Contractor can submit Review Request to GM Site/ GM Project latest by 27<sup>th</sup> of Evaluation Month or 5 days after approval of score, whichever is later. However, acceptance/rejection of 'Review Request' solely depends on the discretion of GM Site/GM Project. After acceptance of Review Request, evaluation score shall be reviewed at site and the score after completion of review process shall be acceptable and binding on the contractor.
- viii). Project on Hold due to reasons not attributable to bidder -
- a. **Short hold:** Evaluation shall not be applicable for this period, however, Loading will be considered.
  - b. **Long hold:** Short hold for continuous six months and beyond or hold on account of Force Majeure shall be considered as Long Hold. Evaluation as well as Loading shall not be considered for this period.
- ix). Performance evaluation as specified above in this clause is applicable to Prime bidder and Consortium partner (or Technical tie up partner) for their respective scope of work.

10.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc. before quoting for this tender. They may also consult this

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office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.

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

**"Integrity Pact (IP)"**

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

| Sl. No. | IEM                                   | Email                                          |
|---------|---------------------------------------|------------------------------------------------|
| 1.      | Shri Otem Dai, IAS (Retd.)            | <a href="mailto:iem1@bhel.in">iem1@bhel.in</a> |
| 2.      | Shri Bishwamitra Pandey, IRAS (Retd.) | <a href="mailto:iem2@bhel.in">iem2@bhel.in</a> |
| 3.      | Shri Mukesh Mittal, IRS (Retd.)       | <a href="mailto:iem3@bhel.in">iem3@bhel.in</a> |

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

**Note:**

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

Details of contact person(s):

|                 |                                                                   |                                                                        |
|-----------------|-------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Name:</b>    | R M Malhotra/ GM (Purchase)                                       | Tapish Kumar/Dy Manager (Purchase)                                     |
| <b>Dept:</b>    | Purchase Department                                               |                                                                        |
| <b>Address:</b> | Floor No. 5 & 6, Shreemohini Complex, 345 Kingsway, Nagpur-440001 |                                                                        |
| <b>Email:</b>   | <a href="mailto:rmalhotra@bhel.in">rmalhotra@bhel.in</a>          | <a href="mailto:tapishkhandelwal@bhel.in">tapishkhandelwal@bhel.in</a> |
| <b>Phone:</b>   | 0712-2858633                                                      | 9010903666                                                             |

16.0 The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre-Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD.

17.0 In case BHEL decides on a 'Public Opening', the date & time of opening of the sealed PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorized representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful/Disqualified bidders under intimation to the respective bidders.

18.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.

19.0 **Reverse Auction:** Applicable. "BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com) on "**supplier registration page**".) for this tender. RA shall be conducted among all the techno-commercially qualified bidders.

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

20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.

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

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

23.0 ~~Consortium Bidding (or Technical Tie up) shall be allowed only if specified in Pre-Qualifying Requirement (PQR) criteria, and in such a case the following shall be complied with:~~

~~23.1 Prime Bidder and Consortium Partner or partners are required to enter into a consortium agreement for the said contract with a validity period of six months initially. In case bidder becomes L1, Consortium Agreement valid till contractual completion period shall be submitted to BHEL before signing the contract. Consortium Agreement shall be kept valid till scope of work awarded to consortium partner(s) as per contract is completed.~~

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- ~~23.2 'Standalone' bidder cannot become a 'Prime Bidder' or a 'Consortium bidder' or 'Technical Tie up bidder' in a consortium (or Technical Tie up) bidding. Prime bidder shall neither be a consortium partner to other prime bidder nor take any other consortium partners. However, consortium partner may enter into consortium agreement with other prime bidders. In case of non-compliance, consortium bids of such Prime bidders will be rejected.~~
- ~~23.3 Number of partners for a Consortium Bidding (or Technical Tie up) including Prime Bidder shall be NOT more than 3 (three).~~
- ~~23.4 Prime Bidder shall be as specified in the Pre-Qualification Requirement, else the bidder who has the major share of work.~~
- ~~23.5 In order to be qualified for the tender, Prime Bidder and Consortium partner or partners shall satisfy (i) the Technical 'Pre Qualifying Requirements' specified for the respective package, (ii) "Assessment of Capacity of Bidder" as specified in clause 9.0.~~
- ~~23.6 Prime Bidder shall comply with additional 'Technical' criteria of PQR as defined in 'Explanatory Notes for the PQR'.~~
- ~~23.7 Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified~~
- ~~23.8 In case customer approval is required, then Prime Bidder and Consortium Partner or partners shall have to be individually approved by Customer for being considered for the tender.~~
- ~~23.9 Prime Bidder shall be responsible for the overall execution of the contract.~~
- ~~23.10 In case of award of job, Performance shall be evaluated for Prime Bidder and Consortium Partner or partners for their respective scope of work(s) as per prescribed formats.~~
- ~~23.11 In case the Consortium partner or partners back out, their SDs shall be encashed by BHEL and BHEL shall take necessary action as per extant guidelines. In such a case, other consortium partner or partners meeting the PQR have to be engaged by the Prime Bidder, and if not, the respective work will be withdrawn and executed on risk and cost basis of the Prime Bidder. The new consortium partner or partners shall submit fresh SDs as applicable.~~
- ~~23.12 In case Prime Bidder withdraws or insolvency / liquidation / winding up proceedings have been initiated / admitted against the Prime Bidder, BHEL reserves the right to cancel, terminate or short close the contract or take any other action to safeguard BHEL's interest in the Project / Contract. This action will be without prejudice to any other action that BHEL can take under Law and the Contract to safeguard interests of BHEL.~~
- ~~23.13 After execution of work, the work experience shall be assigned to the Prime Bidder and the consortium partner or partners for their respective scope of work. After successful execution of one work with a consortium partner under direct order of BHEL, the Prime Bidder shall be eligible for becoming a 'standalone' bidder for works similar to that for which consortium partner was engaged, for subsequent tenders.~~
- ~~23.14 The consortium partner shall submit SD equivalent to 1% of the total contract value in addition to the SD to be submitted by the Prime Bidder for the total contract value. In case there are two consortium partners, then each partner shall submit SD equivalent to 0.5% of the total contract value in addition to the SD to be submitted by the Prime Bidder for the~~

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~~total contract value. However, Prime Bidder has also option for submission of SD on behalf of consortium partner (s).~~

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

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

- 24.0 The bidder shall submit/upload documents in support of possession of 'Qualifying Requirements' duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.
- 25.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 26.0 The consultant / firm (and any of its affiliates) shall not be eligible to participate in tender(s) for the related works or services for the same project, if they were engaged for the consultancy services.
- 27.0 Guidelines/rules in respect of Suspension of Business dealings, Vendor evaluation format, Quality, Safety & HSE guidelines, Experience Certificate, etc. may undergo change from time to time and the latest one shall be followed. The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' is available on [www.bhel.com](http://www.bhel.com) on "supplier registration page".
- 28.0 The offers of the bidders who are on the banned/ hold list and also the offer of the bidders, who engage the services of the banned/ hold firms, shall be rejected. The list of **banned/ hold firms** is available on BHEL web site [www.bhel.com](http://www.bhel.com).
- 28.1 Integrity commitment, performance of the contract and punitive action thereof:
- 28.1.1 **Commitment by BHEL:**  
BHEL commits to take all measures necessary to prevent corruption in connection with the tender Process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.
- 28.1.2 **Commitment by Bidder/ Supplier/ Contractor:**
- (i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
  - (ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.
  - (iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

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

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Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extent guidelines of the company available on [www.bhel.com](http://www.bhel.com) and / or under applicable legal provisions.

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

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

| Type under MSE | SC/ST owned | Women owned | Others (excluding SC/ ST & Women |
|----------------|-------------|-------------|----------------------------------|
| — Micro        |             |             |                                  |
| — Small        |             |             |                                  |

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

~~a) MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011 MA dtd. 09/11/2016 office of AS & DC, MSME) only if they submit along with the offer, attested copies of either Udyam Registration Certificate or EM-II certificate having deemed validity (five years from the date of issue of acknowledgement in EM-II) or valid NSIC certificate or Udyog Aadhar Memorandum (UAM) & Acknowledgement or EM-II Certificate along with attested copy of a CA certificate (format enclosed as Annexure – 3) where deemed validity of EM-II certificate of five years has expired applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the last date of Technical Bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders. No benefits shall be applicable for this enquiry if the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer. Documents submitted by the bidder may be verified by BHEL for rendering the applicable benefits.~~

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

**31.0 PREFERENCE TO MAKE IN INDIA:**

For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/Non-Local Supplier and purchase preferences to Class I local supplier, is as defined I Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

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

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for the purpose of this Clause shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or

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*firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.*

III. *"Bidder from a country which shares a land border with India" for the purpose of this Clause means: -*

- a. An entity incorporated established or registered in such a country; or*
- b. A subsidiary of an entity incorporated established or registered in such a country; or*
- c. An entity substantially controlled through entities incorporated, established or registered in such a country; or*
- d. An entity whose beneficial owner is situated in such a country; or*
- e. An Indian (or other) agent of such an entity; or*
- f. A natural person who is a citizen of such a country; or*
- g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above*

IV. *The beneficial owner for the purpose of (III) above will be as under:*

- 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.*

*Explanation*

- a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.*
- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.*
- 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.*
- 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person has ownership of or entitlement to more than fifteen percent of the property or capital or profits of the such association or body of individuals.*
- 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;*
- 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.*

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

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

**Note:**

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

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

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

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

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

34.0 The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

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

35.0 Order of Precedence:

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

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

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

For BHARAT HEAVY ELECTRICALS LTD

(Addl. General Manager - Purchase)

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**Enclosure:**

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

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**ANNEXURE - 1**

**PRE QUALIFYING CRITERIA**

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                         |  |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--|
| JOB       | Development of open storage yard of approx. 1,60,500 Sqm area including approach roads & drains, internal roads & drains, pipe culverts, fencing & gates, electrical illuminations, concrete sleepers, security cabin, first aid centre room, RO plant room, etc."<br>At<br><b>2x660 MW NTPC Talcher TPS</b>                                                                                                                                                                                                                                                                                                                                                                                                           |                                                         |  |
| TENDER NO | BHE/PW/PUR/TLRPT-ENB/2632                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                         |  |
| SL NO     | PRE QUALIFICATION CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bidders claim in respect of fulfilling the PQR Criteria |  |
|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Applicability                                           |  |
| A         | Submission of Integrity Pact duly signed (if applicable)<br>(Note: <del>To be submitted by Prime Bidder &amp; Consortium</del> /Technical Tie up partner jointly in case Consortium bidding is permitted, otherwise by the sole bidder)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | APPLICABLE                                              |  |
| B         | <b><u>B Technical PQR</u></b><br><br><b>B.1:</b> Bidder should have Executed “ <b>Piling or Civil or Structure or ‘Civil and Structural Works’ or RCC Chimney or RCC Cooling Tower or RCC Silo or Mill Bunker or any combination of these works</b> ” for any one of the following in the last seven years from latest date of bid submission:<br><br><b>B.1.1)</b> Executed One work of value not less than ₹ 540 Lakhs against single work order.<br><br><b>OR</b><br><b>B.1.2)</b> Executed Two works each of value not less than ₹ 337.50 Lakhs against maximum two work orders.<br><br><b>OR</b><br><b>B.1.3)</b> Executed Three works each of value not less than ₹ 270 Lakhs against maximum three work orders. | APPLICABLE                                              |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|
| C.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Bidders must have achieved an average annual financial turnover (audited) of Rs. <b>202.50 Lakhs or more</b> over last three Financial Years (FY) i.e 2018-19,2019-20 & 2020-21'                                                                                                    | <b>APPLICABLE</b>     |                |
| C.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>NETWORTH</b> (only in case of Companies)<br>Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive.                                                                                                                        | <b>APPLICABLE</b>     |                |
| C.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>PROFIT</b><br>Bidder must have earned profit in any one of the three Financial Years as applicable in the last three Financial Years as furnished for 'C-1' above.                                                                                                               | <b>APPLICABLE</b>     |                |
| C-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Bidder must not be under Bankruptcy Code Proceedings (IBC) by NCLT or under Liquidation / BIFR, which will render him ineligible for participation in this tender, and shall submit undertaking ( <b>Annexure-8</b> ) to this effect.                                               | <b>APPLICABLE</b>     |                |
| D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Assessment of Capacity of Bidder:<br><br>The "Assessment of Capacity of Bidders" for this Tender shall be carried out by considering the identified similar packages as " <b>Enabling Works</b> ".                                                                                  | <b>APPLICABLE</b>     |                |
| E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Approval of Customer (if applicable)</b><br><br><b>Note:</b> Names of bidders (including consortium/Technical Tie up partners in case consortium bidding is permitted) who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval | <b>NOT APPLICABLE</b> |                |
| F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Price Bid Opening<br><b>Note:</b> Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E                                                                                                                                          |                       | <b>BY BHEL</b> |
| G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Consortium tie-ups                                                                                                                                                                                                                                                                  | <b>NOT APPLICABLE</b> |                |
| <p><b><u>Explanatory Notes for the PQR (unless otherwise specified in the PQR):</u></b></p> <p><b><u>Explanatory Notes for PQR B.1 (Technical)</u></b></p> <ul style="list-style-type: none"> <li>For the criteria (B.1), actual executed value shall be considered.</li> <li>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-</li> </ul> $P = R + 0.425 \times R \times \frac{(X_N - X_0)}{X_0} + 0.425 \times R \times \frac{(Y_N - Y_0)}{Y_0}$ <p>Where<br/> P = Updated value of work<br/> R = Value of executed work<br/> X<sub>N</sub> = All India Avg. Consumer Price index for industrial workers for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).<br/> X<sub>0</sub> = All India Avg. Consumer Price index for industrial workers for last month of work execution<br/> Y<sub>N</sub> = Monthly Whole Sale Price Index for All Commodities for three months prior to the</p> |                                                                                                                                                                                                                                                                                     |                       |                |

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month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

$Y_0$  = Monthly Whole Sale Price Index for All Commodities for last month of work execution

- The evaluation currency for this tender shall be INR.

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

1. VOID
2. Unless otherwise specified, for the purpose of "B2 Technical Criteria", the word 'EXECUTED' means achievement of milestones as defined below -
  - a. "ACHIEVEMENT OF PHYSICAL QUANTITIES" as per PQRs.
  - b. "READINESS FOR COAL FILLING" of at least one Bunker, in respect of Mill Bunker Structure.
  - c. "CHARGING" in respect of Power Transformers/ Bus Ducts/ "HT/LT Switchgears" / "HT/LT Cabling".
  - d. For C&I works: "SYNCHRONISATION" in case of power project / "WORK EXECUTION of the value as defined in PQR" in case of industry.
  - e. "BOILER LIGHT UP" in respect of Boiler / CFBC / ESP.
  - f. "CHARGING OF ATLEAST ONE PASS" in respect of ESP(R&M)
  - g. "GAS IN" in respect of HRSG.
  - h. "STEAM BLOWING" in respect of Power Cycle Piping.
  - i. "HYDRAULIC TEST"/ ANY OTHER EQUIVALENT TEST LIKE "100% RT/UT OF WELDED JOINTS" of the system in respect of Pressure parts/ LP Piping/CW Piping.
  - j. "FULL LOAD OPERATION OF THE UNIT" in respect of Insulation work.
  - k. "SYNCHRONISATION" in respect of STG / GTG.
  - l. "SPINNING" in respect of HTG.
  - m. "GAS IN" in respect of FGD
3. Boiler means HRSG or WHRB or any other types of Steam Generator.
4. Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass.
5. For the purpose of evaluation of the PQR, one MW shall be considered equivalent to 3.5 TPH where ever rating of HRSG/BOILER is mentioned in MW. Similarly, where ever rating of Gas Turbine is mentioned in terms of Frame size, ISO rating of the same in terms of MW shall be considered for evaluation.

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

**C-1:**

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

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

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

Net worth = Paid up share capital + Reserves

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

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

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

**Common Explanatory Notes:**

1. For evaluation of PQR, in case Bidder alone does not meet the pre-qualifying technical criteria B1 above, bidder may utilize the experience of its Parent/ Subsidiary Company along with its own experience, subject to following:
  - a. The parent company shall have a controlling stake of  $\geq 50\%$  in the subsidiary company (as per Format-1).
  - b. The Parent Company/ Subsidiary Company of which experience is being utilized for bidding shall submit Security Deposit(SD) equivalent to 1% of the total contract value
  - c. The parent/ subsidiary company and bidder shall provide an undertaking that they are jointly or severally responsible for successful performance of the contract (as per Format-2).
  - d. In case Bidder is submitting bid as a Consortium Partner, option of utilizing experience of parent/subsidiary Company can be availed by Prime Bidder only.
  - e. Parent Company/ Subsidiary Company of which experience is being used for bidding, cannot participate as a 'Standalone Bidder' or as a 'Consortium bidder'.
2. Completion date for achievement of the technical criteria specified in the 'B' above should be in the last 7 years ending on the 'latest date of Bid Submission' of Tender irrespective of date of the start of work. Completion date shall be reckoned from the "Financial Year quarter of bid submission". (for e.g. -Work completed on 01.01.2014 shall be considered even if latest date of bid submission is 20.03.2021).
3. "Executed" means the bidder should have achieved the technical criteria specified in the Common QR even if the Contract has not been completed or closed.
4. In case the Experience/PO/WO certificate enclosed by bidders do not have separate break up of prices for the E&C portion for Electrical and C&I works (i.e. the certificates enclosed are for composite order for supply and erection of Electrical and C&I and other works if any), then value of Erection & Commissioning for the Electrical and C&I portion shall be considered as 15% of the price for supply & erection of Electrical and C&I.
5. Following shall be complied with in case of consortium:
  - a. The Prime Bidder and Consortium Partner(s) are required to enter in to a consortium agreement and certify to BHEL regarding existence and validity of their consortium agreement in line with validity period mentioned in NIT.
  - b. Prime Bidder and Consortium partners shall be approved by Customer for being considered for the tender (applicable if customer approval is required).

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|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"><li>c. Number of partners including prime Bidder shall be NOT more than 3 (three).</li><li>d. Prime Bidder alone shall necessarily comply with “B1Technical Criteria” except for mechanical package where B1 criteria is not applicable.</li><li>e. Prime Bidder and Consortium Partner shall together comply with the ‘Pre-Qualification Requirements’ specified for the respective category of technical requirement as per “B2 technical criteria”.</li><li>f. Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified.</li><li>g. All other conditions shall be read in conjunction with clause no 23.0 of NIT.</li><li>h. Prime Bidder shall be the Bidder who has a major share of work.</li><li>i. Prime Bidder shall be responsible for the overall execution of the Contract.</li><li>j. Performance shall be evaluated for Prime Bidder and the Consortium partner for their respective scope of work.</li><li>k. In case the Consortium partner backs out, another consortium partner meeting the QRs, has to be engaged by Prime Bidder and if not, the respective work will be withdrawn and executed on risk and cost basis of the prime bidder.</li><li>l. In case Prime Bidder withdraws or insolvency / liquidation / winding up proceedings have been initiated / admitted against the Prime Bidder, BHEL reserves the right to cancel, terminate or short close the contract or take any other action to safeguard BHEL’s interest in the Project / Contract. This action will be without prejudice to any other action that BHEL can take under Law and the Contract to safeguard interests of BHEL</li><li>m. After successful execution of one work with a consortium partner under direct orders of BHEL, the Prime Bidder shall be eligible for becoming a ‘standalone’ bidder for works similar to that for which consortium partner was engaged, for subsequent tenders.</li><li>n. The Consortium partner shall submit SD equivalent to 1% of the total contract value in addition to the SD to be submitted by the Prime Bidder for the total contract value.</li></ul> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

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

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**Format-1**

**Not Applicable**

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**Format-2**

**Not Applicable**

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**ANNEXURE - 2**

**CHECK LIST**

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

|     |                                                                                                                                                                                    |                                                                                                                                                                                |                       |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 1   | Name and Address of the Tenderer                                                                                                                                                   |                                                                                                                                                                                |                       |
| 2   | Details about type of the Firm/Company                                                                                                                                             |                                                                                                                                                                                |                       |
| 3.a | Details of Contact person for this Tender                                                                                                                                          | Name : Mr/Ms<br>Designation:<br>Telephone No:<br>Mobile No:<br>Email ID:<br>Fax No:                                                                                            |                       |
| 3.b | Details of alternate Contact person for this Tender                                                                                                                                | Name : Mr/Ms<br>Designation:<br>Telephone No:<br>Mobile No:<br>Email ID:<br>Fax No:                                                                                            |                       |
| 4   | EMD DETAILS                                                                                                                                                                        | DD No:                      Date :<br>Bank :                      Amount:<br><u>Please tick ( √ ) whichever applicable:-</u><br><del>ONE TIME EMD / ONLY FOR THIS TENDER</del> |                       |
| 5   | Validity of Offer                                                                                                                                                                  | TO BE VALID FOR SIX MONTHS FROM DUE DATE                                                                                                                                       |                       |
|     |                                                                                                                                                                                    | APPLICABILITY<br>(BY BHEL)                                                                                                                                                     | ENCLOSED BY<br>BIDDER |
| 6   | Whether the format for compliance with <b>PRE QUALIFICATION CRITERIA</b> (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format | Applicable                                                                                                                                                                     | YES / NO              |
| 7   | Audited profit and Loss Account for the last three years                                                                                                                           | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 8   | Copy of GST & PAN Card                                                                                                                                                             | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 9   | Whether all pages of the Tender documents including annexures, appendices etc. are read understood and signed                                                                      | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 10  | Integrity Pact                                                                                                                                                                     | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 11  | OFFER FORWARDING LETTER / TENDER SUBMISSION LETTER                                                                                                                                 | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 12  | Declaration by Authorized Signatory                                                                                                                                                | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 13  | No Deviation Certificate                                                                                                                                                           | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 14  | Declaration confirming knowledge about Site Conditions                                                                                                                             | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |
| 15  | Declaration for relation in BHEL                                                                                                                                                   | Applicable/ <del>Not Applicable</del>                                                                                                                                          | YES/NO                |

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

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

**DATE :**

**AUTHORISED SIGNATORY**

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

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**ANNEXURE-3**

**Certificate by Chartered Accountant on letter head**

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

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

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

1. ~~**For Manufacturing Enterprises:**~~ Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722(E) dated October 5, 2006:  
Rs .....Laes
2. ~~**For Service Enterprises:**~~ Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the **MSMED Act, 2006:**  
Rs .....Laes
3. ~~**For Enterprises**~~ (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs ..... Laes and turnover is Rs. .... Laes (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)
4. ~~**For Enterprises**~~ (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs ..... Laes and turnover is Rs. .... Laes (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)

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

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

**Or**

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

**Or**

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

~~Date:~~

~~(Signature)~~

~~Name:~~

~~Membership Number:~~

~~Seal of the Chartered Accountant~~

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**ANNEXURE-4**

**Reverse Auction Process Compliance Form**

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

To

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

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

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the RFQ document for {Items} against BHEL enquiry/ RFQ no.{ BHE/PW/PUR/TLRPT-ENB/2632} dt. {.....}  
This letter is to confirm that:

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

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

With regards

Signature with company seal

Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:

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

**BHEL PSWR**  
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**ANNEXURE – 5**

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

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

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**ANNEXURE – 6**

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

**To**

- M/s. Service provider
- Postal address

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

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

Dear Sir,

We confirm that we have quoted.

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

**for item(s) covered under tender enquiry No. BHE/PW/PUR/TLRPT-ENB/2632**

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

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

Yours sincerely,

For \_\_\_\_\_

**Name:**

**Company:**

**Date:**

**Seal:**

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**ANNEXURE – 7**

**INTEGRITY PACT**

**Between**

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

**and**

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

**Preamble**

The Principal intends to award, under laid-down organizational procedures, contract/s for Development of open storage yard of approx. 1,60,500 Sqm area including approach roads & drains, internal roads & drains, pipe culverts, fencing & gates, electrical illuminations, concrete sleepers, security cabin, first aid centre room, RO plant room, etc." At 2x660 MW NTPC Talcher TPS (*ETS no.: BHE/PW/PUR/TLRPT-ENB/2632*). The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

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

**Section 1- Commitments of the Principal**

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

- 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- 1.1.3 The Principal will exclude from the process all known prejudiced persons.

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1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

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

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

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

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

**Section 4 - Compensation for Damages**

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- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

**Section 5 - Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

**Section 6 - Equal treatment of all Bidders/ Contractors / Sub-contractors**

- 6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.
- 6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

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

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

**Section 8 -Independent External Monitor(s)**

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non-disclosure agreement.

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- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.9 IEM should examine the process integrity; they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.
- 8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.12 The word 'Monitor' would include both singular and plural.

**Section 9 - Pact Duration**

- 9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.
- 9.2 If any claim is made/ lodged during currency of IP, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

**Section 10 - Other Provisions**

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.

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- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.

For & On behalf of the Principal

(Office Seal)

Place Nagpur

Date 20/5/22

Witness: \_\_\_\_\_

(Name & Address) \_\_\_\_\_

For & On behalf of the Bidder/ Contractor

(Office Seal)

Witness: \_\_\_\_\_

(Name & Address) \_\_\_\_\_

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**ANNEXURE - 8**

**UNDERTAKING**

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

**To,**

GM-PURCHASE, BHEL-PSWR,  
Floor No. 5&6, Shri Mohini Complex  
345, KINGSWAY, NAGPUR-440001

Dear Sir/Madam,

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

**Ref:** NIT/Tender Specification No: BHE/PW/PUR/TLRPT-ENB/2632

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

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

Place:

Date:

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**Annexure-9**

**DECLARATION**

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

To

GM-PURCHASE, BHEL-PSWR,  
Floor No. 5&6, Shri Mohini Complex  
345, KINGSWAY, NAGPUR-440001

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

Dear Sir/ Madam,

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

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

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

Regards,

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

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

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

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

\_\_\_\_\_  
\_\_\_\_\_

**BHEL PSWR  
Notice Inviting Tender**

**E-Tender Specification No: BHE/PW/PUR/TLRPT-ENB/2632**

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**Annexure-10**

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

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

To,

GM-PURCHASE, BHEL-PSWR,  
Floor No. 5&6, Shri Mohini Complex  
345, KINGSWAY, NAGPUR-440001

Dear Sir,

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

**Ref :** 1) NIT/Tender Specification No: BHE/PW/PUR/TLRPT-ENB/2632,  
2) All other pertinent issues till date

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

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

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

...

Thanking you,  
Yours faithfully,

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

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

**Note:**

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

**BHEL PSWR  
Notice Inviting Tender**

**E-Tender Specification No:** BHE/PW/PUR/TLRPT-ENB/2632

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**Annexure-11**

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

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

To,

GM-PURCHASE, BHEL-PSWR,  
Floor No. 5&6, Shri Mohini Complex  
345, KINGSWAY, NAGPUR-440001

Dear Sir,

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

**Ref:** 1) NIT/Tender Specification No: BHE/PW/PUR/TLRPT-ENB/2632,  
2) All other pertinent issues till date

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

(a) is not from such a country / ☐

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

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

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

Thanking you,  
Yours faithfully,

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

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

**BHEL PSWR  
Notice Inviting Tender**

**E-Tender Specification No:** BHE/PW/PUR/TLRPT-ENB/2632

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**Annexure-12: IMPORTANT INFORMATION**

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

**Postal Address:**

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

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

Dy Manager Purchase, Email: [tapishkhandelwal@bhel.in](mailto:tapishkhandelwal@bhel.in) Ph: +91-9010903666

Manager Purchase, Email: [vivekja@bhel.in](mailto:vivekja@bhel.in)

DGM/Purchase, email: [kamleshbhel@bhel.in](mailto:kamleshbhel@bhel.in),

GM Purchase, Email: [rmalhotra@bhel.in](mailto:rmalhotra@bhel.in). Ph: +91 – 712 – 2858 – 633

1. Refer the abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' which is available at [www.bhel.com](http://www.bhel.com) on "supplier registration page" at the following link: [https://www.bhel.com/sites/default/files/suspension\\_guidelines\\_abridged.pdf](https://www.bhel.com/sites/default/files/suspension_guidelines_abridged.pdf)
2. All Statutory Requirements as applicable for this project shall be complied with.
3. Following clause shall form part of the HSE documents issued under Chapter IX of Volume IB 'Special Conditions of Contract'

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

4. BHEL Fraud Prevention Policy: "The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice."
5. "Pradhan Mantri Kaushal Vikas Yojna: The contractor shall, at all stages of work deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/Industrial Training Institute/ National Institute of Construction Management and Research (NICMAR), National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/ Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs.100 per such tradesman per day. Decision of Engineer-in-Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding".

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**6. The following clause is added under clause 1.10 Security Deposit in Vol-1C:**

**Clause No 1.10.8 of Vol-IC General Conditions of Contract: Timely Submission of Security Deposit for Execution of the contract:** “Bidder agrees to submit Security Deposit required for execution of the contract within the time period mentioned. In case of delay in submission of Security Deposit, enhanced Security Deposit which would include interest (Base rate of SBI +6%) for the delayed period, shall be submitted by the bidder. Further, if Security Deposit is not submitted till such time the first bill becomes due, the amount of Security Deposit due shall be recovered as per terms defined in NIT/contract, from the bills along with due interest.”

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

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

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

“Bank Guarantee issued by:

a. Any of the BHEL consortium bank listed below:

State Bank of India  
ABN Amro Bank N.V.  
Bank of Baroda  
Canara Bank  
Citi Bank N.A.  
Corporation Bank  
Deutsche Bank  
HDFC Bank Ltd.  
The Hongkong and Shanghai Banking Corporation Ltd  
ICICI Bank Ltd.  
IDBI Ltd.  
Punjab National Bank  
Standard Chartered Bank  
State Bank of Travancore  
State Bank of Hyderabad  
Syndicate Bank

b. Any public sector Bank (other than consortium banks) with a clause in the text of Bank Guarantee that **“It is enforceable at Nagpur, Maharashtra”**.

c. Any private sector banks, with a clause in the text of Bank Guarantee that **“It is enforceable by being presented at any branch of the bank”**.

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

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

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

“BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) (<https://www.bhel.com/guidelines-reverse-auction-2021>) for this tender. RA shall be conducted among the techno-commercially qualified bidders.

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

**Note:-**

- 1. No benefits to MSE bidders w.r.t Reverse Auction Guidelines as available on [www.bhel.com](http://www.bhel.com) against works contract.**
- 2. In case of enquiry through e-procurement the sealed electronic price bid (e-bid) is to be treated as sealed envelope price bid.**
- 9. -Bidders kindly take note that EMD (Earnest Money Deposit) shall be furnished by MSE bidders as well, as per the amount and procedure indicated in the NIT/GCC**
- 10. Clause no. 2.24 of GCC PERFORMANCE GUARANTEE FOR WORKMANSHIP:** The guarantee period shall commence from the date of Completion of contract as certified by BHEL Engineer.
- 11. Price Variation Compensation (Clause no. 2.17 of GCC) & Overrun Compensation (Clause no. 2.12 of GCC) shall not be applicable**
- 12. Clause no. 2.14.2 of GCC , Variation in Individual Quantities of BOQ Item(s) Shall not be applicable**

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I: Project Information

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1.0</b> | <b>Project Information:- 2x660 MW NTPC Talcher TPS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>1.1</b> | <p><b><u>Approach to site</u></b></p> <p><b><u>INTRODUCTION:</u></b></p> <p>The proposed site is located near Talcher town in Angul district of Orissa.</p> <p>Latitudes : 20°55' N<br/>Longitudes : 85°25' E<br/>Place : Talcher town<br/>District : Angul<br/>Nearest Railway Station: Talcher (4 KM)<br/>Nearest Airport : Bhubaneswar (90KM)<br/>Nearest Road : Banarpal–Talcher section of National Highway No. 23 at a distance of about 1 km from Anand Bazar.</p> <p>The proposed site is located near Talcher town in Angul district of Orissa having latitude and longitude as 20°55' N and longitude 85°25' E respectively. The site is approachable from Banarpal–Talcher section of National Highway No. 23 at a distance of about 1 km from Anand Bazar. Nearest railway station is at Talcher on Talcher-Cuttack section of North Eastern Railway at about 4 Kms. The nearest commercial airport is Bhubaneswar at about 90 km.</p> |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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### 2. SCOPE OF WORK

#### 2.1 The scope of work comprises of but not limited to the following;

- i) Development of open storage yard (inside Project premises/Outside project premises) of approx. 1,60,500 Sqm area including approach road, internal roads & drains, pipe culverts, fencing & gates, electrical & illumination, etc.
- ii) RO plant building
- iii) Security Cabins
- iv) Misc. Site enabling Works

#### 2.2 The scope of work will involve following civil, structural and architectural works and shall be executed as per relevant IS Codes.

- i) Topography Survey of Storage yard, preparation and submission of contour drawing for finalization of Earthwork Quantity. No additional payment will be made for this activity agency has to assess accordingly.
- ii) Earth work in stripping of top soil up to a maximum depth of 0.30m below ground level.
- iii) Preparation of sub-grade by excavating earth to required depth for all types of soil.
- iv) Earthwork in excavation in all types of soil.
- v) Earthwork in backfilling up to any depth below ground level.
- vi) Supplying and filling up to any depth below ground level for grading to proper grade and level with Granular Morrum.
- vii) Providing and filling in trenches, plinths, area paving and other underground structures with graded stone aggregate.
- viii) Providing & laying water bound macadam base course.
- ix) Providing and placing concrete of grade 1:4:8, 1:3:6, 1:2:4 & 1:1.5:3
- x) Brickwork, Plastering etc.
- xi) Supplying and erecting in position 2.4 m high galvanized chain linked fencing.
- xii) Supply, fabrication and installing in position and testing MS Gates.
- xiii) Concrete Sleeper 8000 nos
- xiv) Painting
- xv) Door Window Fixing
- xvi) Water supply
- xvii) Sanitary Fitting

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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- xviii) Providing 6" Dia. Borwells with Submersible pumps and boring the same complete in all respect as per BHEL's requirement.
- xix) Miscellaneous.

Standard specifications for various items of work for building and road construction as per the relevant IS-codes (latest edition) shall be applicable for this work. The work has to be executed as per standard specification and drawings to the satisfaction of BHEL. However, the following Drawings/Sketches are to be read along with specifications and shall be treated as in the scope of work.

### 2.2.1 Preparations of actual layout and BOQ as per site condition.

- (a) BOQ & drawing given in tender is tentative only as the tender is prepared on the basis of preliminary information which may vary during execution as per actual site condition. As soon as the area for construction of civil work ~~closed store shed and~~ open yard etc. is taken over from BHEL/customer, Contractor has to ensure actual layout open storage yard, roads, drains and etc. after doing detailed survey of site. Contractor shall submit detailed survey report after plotting in graph sheet along with actual BOQ for each & every work – section/Part wise and submit the same to BHEL for further comparison with the respective BOQ. All endeavors have to be made to restrict the quantities as per BOQ except some "exceptional cases" which are very necessary due to site condition. Individual item qty. variation may be allowed up to reasonable extent unless the overall executed value of the contract is within the LOA value. For any variation beyond the total contract value, prior approvals are required from BHEL PSWR HQ before release of payment.

### 2.3 Electricals and Illumination works:

- i) The electrical installation shall generally be carried out in conformity with the requirements of the Indian electricity act, 1910 as amended up to date and the Indian electricity rules, 1956 framed there under and also the relevant regulations of the electric supply authority concerned as well as IS: 732-1963 (revised). Before commencement of work Contractor has to submit for approval of BHEL detail electrical layout drawings prepared by experienced & licensed electrical agency/engineer indicating the cable route, internal/external panels, DBs, cable sizing, fittings & fixtures, Earthing, etc. in line with the BOQ of electrical work.
- ii) Good workmanship is an essential requirement for compliance with the rules in the code. The work shall be carried out under the direct supervision of a person holding a valid certificate of competency issued by the state government concerned for the type of work involved.
- iii) All out door/external lamps shall have weatherproof fittings of design approved by BHEL Engineer so as to effectively prevent the admission of moisture.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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- iv) The distribution fuse boards shall be located as near as possible to the center of the load they are intended to control.
- v) All main switches shall be of metal clad enclosed pattern, which shall be fixed at close proximity to the point of entry of supply.
- vi) Main and branch distribution boards shall be in accordance with Indian standard 732-1963 "code of practice for electrical wiring installation".
- vii) PVC conduit (concealed type) wiring system should be adopted throughout and all conduit pipes/channel shall be conforming to latest IS.
- viii) Approved and good quality copper wire with adequate current carrying capacity/voltage rating with proper insulation as per IS should be used for the entire electrical wiring/installation.
- ix) The service connection from outside mains to the switchboard inside the building shall also be carried out by the contractor.
- x) All earthing system shall be in accordance with IS: 3043-1966 "code of practice for earthing".
- xi) The installation and earthing shall generally be carried out in accordance with the Indian electricity rules 1956 as amended from time to time and the relevant regulations of the electricity supply authority concerned.
- xii) All plugs and sockets shall be of three-pin type, one of the pins being connected to earth.
- xiii) Bodies of all electrical appliances shall be earthed by the use of three pin plugs. The covers of the regulators if of metallic construction, shall be earthed by means of a separate earth wire. A separate earth wire shall be used for earthing these appliances.
- xiv) All earth wires and earth continuity conductors shall be of copper/-galvanized iron. They shall be either stranded or solid bars of flat rectangular strips and may be bare, provided, due care is taken to avoid corrosion and mechanical damage to it. Inter connections of earth continuity conductors and main and branch earth wires shall be made in such a way that reliable and good electrical connections are permanently ensured.
- xv) The neutral conductor shall not be used as earth wire.
- xvi) Welded, bolted and clamped joints only are permissible. For stranded conductor, sleeve connectors are permissible. Bolted connectors and their screws shall be protected against any possible corrosion.
- xvii) The path of the earth wire shall, as far as possible, be out of reach of any person and shall be visible for inspection.
- xviii) The galvanized iron pipe electrodes shall not be smaller than 38mm internal diameter and shall not be less than 3.5M. In length and shall, as far as possible, be

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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embedded below permanent moisture level and shall be one piece only without any joints.

### 2.4 General Scope:

- i) Furnishing all labour, materials, supervision, construction plans, equipment, supplies, transport to and fro the site, fuel, electricity, compressed air, water, transit and storage insurance and all other incidental items and temporary works not shown on specified but reasonably implied or necessary for the proper completion, maintenance and handling over the works, except in accordance with the stipulations laid down in the contract documents and additional stipulations as may be provide by the engineer during the course of works.
- ii) Furnishing samples of all materials required by the engineers for testing/inspection and approval for use in the works. The samples may be retained by the engineer for final incorporation in the works.
- iii) Furnishing test reports for the products used or intended to be used, if called for the specifications or if so desired by the engineer.
- iv) 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 Laboratory** approved by BHEL. All the testing charges shall be borne by the contractor. Decision of BHEL engineer shall be binding on the contractor.
- v) 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.
- vi) Giving all notices, paying all fees, taxes etc., in accordance with the general conditions of contract, that is required for all works including temporary works.
- vii) Providing all incidental items not shown or specified but reasonably implied or necessary for the successful completion of the work in accordance with contract.
- viii) Arranging for joint checking with BHEL of all site construction activities, preparation of joint protocols for each & every activity and maintaining quality records for audit/inspection as per instruction of BHEL.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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- ix) The drawings enclosed with this tender are intended to give the tenderer a general idea of the type and extent of work involved. The drawings are as such only indicative and not to be considered as the exact construction drawings.
- x) Further this is to be noted that the drawings and the documents furnished along with this specification are the sole property of BHEL. It must not be used directly or indirectly in any way detrimental to the interest of the company.
- xi) The scope of work will also include such other related works although they may not be specifically mentioned in the above paragraph and all such incidental items not specified but reasonably imply and necessary for completion of the job as a whole all as desired and as directed by the engineer.
- xii) The detail scope of work covered above is not a comprehensive list of items of work involved. The detail scope of work may vary considerably depending on the actual construction requirements as per RFC Drawings.

### 2.0 Preparation of actual layout and BOQ as per site condition.

- 2.5.1 Excavation of Foundation, Roads and Trenches etc shall be made as per IS specification.
- 2.5.2 Any filling/loose soil met below the foundation shall be made up with lean cement concrete 1:4:8 mix (min).
- 2.5.3 **The excess/unutilized suitable earth and debris shall be disposed & leveled to the proposed mentioned area for development. All unusable earth debris, trees, vegetation's etc. shall be disposed of at a location embarked by BHEL / Client. Rate quoted for excavation shall be inclusive of such disposal.**
- 2.5.4 **PCC:** below foundation and PCC capping: This shall include supplying and placing PCC at all depths below plinth level including form work, curing, all materials, tools and plants and labour complete. **Concrete of 1:4:8/1:3:6/1:2:4 grade** as defined in IS- 456 with 40mm/20mm/6mm and downgraded stone aggregates as per drawing. Nominal mix (volumetric) shall be allowed to use as per the guidelines of IS-456 (latest edition) with min. W/C ratio & cement content as per IS stipulation for moderate condition. Concrete shall be produced by concrete mixer machine & hand mix is generally not acceptable.

**However, in certain unavoidable circumstances, hand mix shall be permitted with 10% extra cement content as per the discretion of BHEL engineer.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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**2.5.5 Brick masonry:** Brick masonry shall be done by using best quality locally available burnt clay bricks / Fly Ash Lime (FAL) bricks of standard size. Minimum strength of the bricks should not be less than 35 KG/sq. cm. Other quality requirement shall be in line with the relevant IS Code. One-brick thick brickwork shall be constructed as specified, in Cement mortar 1:4 including linking, plumbing, leveling, pacing, joints curing etc. Including all materials, tools, plants and labor complete at all level/elevation.

**Rubble masonry:** Rubble masonry shall be done by using best quality locally available hard stone (black basalt) in foundation/wall. BHEL should be approved quality of stone before placing in use. Irregular hard stones should be rounded off before use. Maximum size of stone should be between 200 – 230mm.

**2.5.6 RCC:** RCC 1:2:4 (M15)/ 1:1.5:3 (M20)/ 1:1:2 (M25) shall be provided for foundation, column, grade beam, lintel, sun sheds, roof slab wherever required as per Drawing and IS specification.

**2.5.7 Formwork:** The formwork should be capable of carrying the dead load of concrete, the reinforcements and the forces of vibration. The form works shall be designed by the contractor and approved by engineer in charge. After sufficient curing period & after attaining adequate strength of concrete the formwork shall be removed with the approval of BHEL engineer. The item of PCC/RCC shall be deemed as completed after removal of forms and required finishing is completed.

### Fencing work

#### Chain Link Fencing

**2.5.8** Providing and fixing chain link fencing of 2.4 m height around open storage yard as per BHEL drawing. Posts shall be spaced at 3m centers and struts at 30m centers and at all turnings with foundations, supplying and fixing chain link fencing confirming to IS 2761 by means of GI hook bolts, rings and washers, hot dip galvanized tension wires, 25x6 mm GI flat stretcher bar at end posts accessories all complete. Rate quoted shall be inclusive of excavation, disposal of surplus earth, concrete (1:3:6), form work and all materials, cost of posts, chain link, transporting, fixing in position etc. Including cost of all labour and two coats of enamel paint of approved shade with a shop coat of primer in all structural members etc. complete.

#### 2.5.10 PAINTING

All the steel items such as doors, windows, ventilators, roof trusses, columns, purlins etc. shall be supplied with one coat of red oxide primer; two coats of synthetic enamel paint of approved color and quality shall be applied after fixing in position to achieve

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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uniform finishing. Rates shall be quoted taking into account cost of painting for woodwork, steel work etc.

Three coats of white/color washing shall be provided uniformly on all wall surfaces as per IS specification.

PVC water tank of Sintex or any approved make shall be supplied and erected on brick pillars or steel staging and to be constructed on location shown as per item rate given in rate schedule.

### 2.1 Prior Approval from BHEL Engineer

Contractor shall take prior approval from BHEL Engineer for use of **Type of Cement (OPC/PPC)**, Brick, Steel, structural steel and for other items as specified in respective items description and necessary **manufacturer's test certificate (MTC)** and laboratory test as required by BHEL shall be arranged by contractor within their quoted rate.

### 2.5 Works by others:

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

### 2.6 Site Visits:

Bidder 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. together with all the statutory, obligatory, mandatory requirements of various authorities before submission of the bid. **The contractor shall carry out the survey and/or soil investigation 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.

### 2.7 Preamble for the schedule of quantities/BOQ:

- i) The work shall be carried out as per construction drawings, specifications and the description of the items in this schedule and/or Engineer's instructions. Drawings enclosed with these documents are only indicative giving some idea of the type of work involved. The layout, sizes and details of the building, structures and foundations shown in tender drawings may

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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vary at a large extent during actual construction. Final drawings will be issued progressively during the execution of the work.

- ii) Items of work provided in this schedule but not covered in the specifications shall be executed strictly as per instructions of the Engineer.
- iii) Unless specifically mentioned otherwise in the contract, the bidder shall quote his rates for the finished items and shall provide for the complete cost towards fuel, tools, tackle, equipment, constructional plant, temporary works, labour materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervision, shops, establishments, services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the works according to the contract.
- iv) The quantities of the various items mentioned in the schedule are approximate and may vary up to any extent or be deleted altogether. Contractor has to obtain prior approval of BHEL before procurement of bought out items/ building materials.
- v) Engineer decision shall be final and binding on the contractors regarding clarification of items in this schedule with respect to the other section of the contract.
- vi) In case of any discrepancy between item description, relevant drawing and/or specification, clarification shall be sought at tender stage itself. Otherwise it shall be assumed that the bidder has quoted for the more stringent requirement.

### 2.8 Procurement and Testing of Materials by Contractor:

Material required for the entire job like cement, sand, aggregates, steel, windows, doors, ventilators, sanitary fixtures, painting & finishing material, electrical fittings and wiring material and all other material required for the completion of entire scope have to be arranged by the contractor. BHEL reserves the right to reject any material not found satisfactory. Rates quoted shall be inclusive of all such contingencies and no additional payment shall be made on this account. For this purpose, sample shall be collected at site in presence of BHEL representative.

### 2.9 Bidders are requested to specifically note the following:

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Work and Technical Specifications

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

|                                                                                                                                       |                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Sh P Vishwakarma<br>BHEL PSWR Nagpur<br>Email: <a href="mailto:pvishwakarma@bhel.in">pvishwakarma@bhel.in</a><br>Ph no: +917447791191 | Sh Balaji.M<br>BHEL PSWR Nagpur<br>Email: <a href="mailto:balajim@bhel.in">balajim@bhel.in</a><br>Ph no: 8600000268 |
|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

| Sl. No. | Description<br><b>PART I</b>                                                                                   | Scope / to be taken care by |        | Remarks                                                                                                               |
|---------|----------------------------------------------------------------------------------------------------------------|-----------------------------|--------|-----------------------------------------------------------------------------------------------------------------------|
|         |                                                                                                                | BHEL                        | Bidder |                                                                                                                       |
| 3.1     | <b>ESTABLISHMENT</b>                                                                                           |                             |        |                                                                                                                       |
| 3.1.1   | <b>For construction purpose</b>                                                                                |                             |        |                                                                                                                       |
| a       | Open space for office (as per availability)                                                                    | Yes                         |        | Location will be finalized after joint survey with owner                                                              |
| b       | Open space for storage (as per availability)                                                                   | Yes                         |        | Location will be finalized after joint survey with owner                                                              |
| c       | Construction of bidder's office, canteen and storage building including supply of materials and other services |                             | Yes    |                                                                                                                       |
| d       | Bidder's all office equipment, office / store / canteen consumables                                            |                             | Yes    |                                                                                                                       |
| e       | Canteen facilities for the bidder's staff, supervisors and engineers etc                                       |                             | Yes    |                                                                                                                       |
| f       | Firefighting equipment like buckets, extinguishers etc                                                         |                             | Yes    |                                                                                                                       |
| g       | Fencing of storage area, office, canteen etc of the bidder                                                     |                             | Yes    |                                                                                                                       |
| 3.1.2   | <b>For living purpose</b>                                                                                      |                             |        |                                                                                                                       |
| a       | Open space for labour colony (as per availability)                                                             |                             | Yes    | Contractor has to make his own arrangements for space, shelter and transportation of labors as per their requirement. |
| b       | Labour Colony with internal roads, sanitation, complying with statutory requirements                           |                             | Yes    |                                                                                                                       |
| 3.2     | <b>ELECTRICITY</b>                                                                                             |                             |        |                                                                                                                       |
| 3.2.1   | <b>Electricity for construction purposes 3 Phase 415/440 V</b>                                                 |                             |        | <b>Contractor has to make his own arrangement.</b>                                                                    |
| a       | Single point source of 440 V                                                                                   |                             | Yes    |                                                                                                                       |
| b       | Further distribution including all materials, Energy Meter, Protection devices and its service                 |                             | Yes    |                                                                                                                       |
| c       | Duties and deposits including statutory clearances if applicable                                               |                             | Yes    |                                                                                                                       |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

| Sl. No. | Description                                                                                                        | Scope / to be taken care by |        | Remarks                                            |
|---------|--------------------------------------------------------------------------------------------------------------------|-----------------------------|--------|----------------------------------------------------|
|         |                                                                                                                    | BHEL                        | Bidder |                                                    |
| 3.2.2   | <b>Electricity for the office, stores, canteen etc. of the bidder (to be specified whether chargeable or free)</b> |                             |        | <b>Contractor has to make his own arrangement.</b> |
| a       | Single point source                                                                                                |                             | Yes    |                                                    |
| b       | Further distribution including all materials, Energy Meter, Protection devices and its service                     |                             | Yes    |                                                    |
| c       | Duties and deposits including statutory clearances if applicable                                                   |                             | Yes    |                                                    |
| 3.2.3   | <b>Electricity for living accommodation of the bidder's staff, engineers, supervisors etc</b>                      |                             | Yes    | <b>Contractor has to make his own arrangement.</b> |
| a       | Single point source                                                                                                |                             | Yes    |                                                    |
| b       | Further distribution including all materials, Energy Meter, Protection devices and its service                     |                             | Yes    |                                                    |
| c       | Duties and deposits including statutory clearances if applicable                                                   |                             | Yes    |                                                    |
| 3.3     | <b>WATER SUPPLY</b>                                                                                                |                             |        |                                                    |
| 3.3.1   | <b>For construction purposes (to be specified whether chargeable or free)</b>                                      |                             |        | <b>Contractor has to make his own arrangement.</b> |
| a       | Making the water available at single point                                                                         |                             | Yes    |                                                    |
| b       | Further distribution as per the requirement of work including supply of materials and execution                    |                             | Yes    |                                                    |
| 3.3.2   | <b>Water supply for bidder's office, stores, canteen etc</b>                                                       |                             |        | <b>Contractor has to make his own arrangement.</b> |
| a       | Making the water available at single point                                                                         |                             | Yes    |                                                    |
| b       | Further distribution as per the requirement of work including supply of materials and execution                    |                             | Yes    |                                                    |
| 3.3.3   | <b>Water supply for Living Purpose</b>                                                                             |                             |        | <b>Contractor has to make his own arrangement.</b> |
| a       | Making the water available at single point                                                                         |                             | Yes    |                                                    |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

| Sl. No. | Description                                                                                                                                                         | Scope / to be taken care by |        | Remarks                                            |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------|----------------------------------------------------|
|         |                                                                                                                                                                     | BHEL                        | Bidder |                                                    |
| b       | Further distribution as per the requirement of work including supply of materials and execution                                                                     |                             | Yes    |                                                    |
| 3.4     | <b>LIGHTING</b>                                                                                                                                                     |                             |        | <b>Contractor has to make his own arrangement.</b> |
| a       | For construction work (supply of all the necessary materials)<br>1. At office/storage area<br>2. At the preassembly area<br>3. At the construction site /area       |                             | Yes    |                                                    |
| b       | For construction work (execution of the lighting work/ arrangements)<br>1. At office/storage area<br>2. At the preassembly area<br>3 At the construction site /area |                             | Yes    |                                                    |
| c       | Providing the necessary consumables like bulbs, switches, etc during the course of project work                                                                     |                             | Yes    |                                                    |
| d       | Lighting for the living purposes of the bidder at the colony / quarters                                                                                             |                             | Yes    |                                                    |
| 3.5     | <b>COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER</b>                                                                                                   |                             |        | Contractor has to make his own arrangement.        |
| a       | Telephone, fax, internet, intranet, e-mail etc.                                                                                                                     |                             | Yes    |                                                    |
| 3.6     | <b>COMPRESSED AIR (wherever required for the work)</b>                                                                                                              |                             | Yes    | Contractor has to make his own arrangement.        |
| 3.7     | <b>DEMOBILIZATION OF ALL THE ABOVE FACILITIES</b>                                                                                                                   |                             | Yes    | Contractor has to make his own arrangement.        |
| 3.8     | <b>TRANSPORTATION</b>                                                                                                                                               |                             |        | Contractor has to make his own arrangement.        |
| a       | For site personnel of the bidder                                                                                                                                    |                             | Yes    |                                                    |
| b       | For bidder's equipments and consumables (T&P, Consumables etc)                                                                                                      |                             | Yes    |                                                    |

| Sl. No. | Description                | Scope / to be taken care by |        | Remarks |
|---------|----------------------------|-----------------------------|--------|---------|
|         |                            | BHEL                        | Bidder |         |
| 3.9     | <b>ERECTION FACILITIES</b> |                             |        |         |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

| Sl. No. | Description                                                                                                                                          | Scope / to be taken care by |        | Remarks                                                                       |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------|-------------------------------------------------------------------------------|
|         |                                                                                                                                                      | BHEL                        | Bidder |                                                                               |
| 3.9     | <b>PART II</b><br><b>ERECTION FACILITIES</b>                                                                                                         |                             |        |                                                                               |
| 3.9.1   | <b>Engineering works for construction</b>                                                                                                            |                             |        | Not Applicable                                                                |
| a       | Providing the erection/constructions drawings for all the equipment covered under this scope                                                         | Yes                         |        |                                                                               |
| b       | Drawings for construction methods                                                                                                                    | Yes                         | Yes    | In consultation with BHEL                                                     |
| c       | As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes |                             | Yes    | Changes are to be marked in drawing & handover to BHEL on completion of work. |
| d       | Shipping lists etc for reference and planning the activities                                                                                         |                             |        | NOT APPLICABLE                                                                |
| e       | Preparation of site erection schedules and other input requirements                                                                                  |                             | Yes    | In consultation with BHEL                                                     |
| f       | Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments                                |                             | Yes    | In consultation with BHEL                                                     |
| g       | Weekly erection schedules based on Sl. No. e                                                                                                         |                             | Yes    | In consultation with BHEL                                                     |
| h       | Daily erection / work plan based on Sl. No. g                                                                                                        |                             | Yes    | In consultation with BHEL                                                     |
| i       | Periodic visit of the senior official of the bidder to site to review the progress so that works are completed as per schedule.                      |                             | Yes    |                                                                               |
| j       | Preparation of preassembly bay                                                                                                                       |                             | Yes    |                                                                               |
| k       | Laying of racks for gantry crane if provided by BHEL or brought by the contractor/bidder himself                                                     |                             |        | Not Applicable                                                                |
| L       | Arranging the materials required for preassembly                                                                                                     |                             | Yes    |                                                                               |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

### 4. TOOL & PLANTS:

Nos. of T&Ps to be deployed at site shall be decided based on site requirement.

Below given nos. are tentative for planning purposes by the bidder.

| Sl. No. | Description of T&P                               | Quantity           |
|---------|--------------------------------------------------|--------------------|
| 1.      | Concrete Mixer                                   | 2Nos.              |
| 2.      | Vibrators                                        | 4 Nos.             |
| 3.      | Leveling instrument with calibration certificate | As per requirement |
| 4.      | Total Station with calibration certificate       | As per requirement |
| 5.      | Hydraulic Excavator /Poclain                     | 1 No.              |
| 6.      | JCB                                              | 2 Nos.             |
| 7.      | Tipper                                           | 4 Nos.             |
| 8.      | Road roller/Vibro roller                         | 1 Nos.             |
| 9.      | Water Tanker                                     | 1 Nos.             |
| 10.     | Tractor with Trolley                             | 2 Nos.             |

### MEASURING AND MONITORING DEVICES (MMD):

To be finalized as per site requirement.

#### NOTE:

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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

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### 5.1 BHEL WILL NOT PROVIDE ANY MATERIAL OR ANY T & P's FOR THIS WORK

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VI: Time Schedule

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### 6 TIME SCHEDULE & MOBILIZATION

#### Initial Mobilization and Time Schedule

After issue of LOI (though Fax/courier/email) the contractor shall report to the Construction Manager/Site In-Charge of BHEL at site within one week and make a MOM (Minutes of meeting) for mobilization of manpower, T&Ps, date of start of work and detailed completion program.

The contractor has to subsequently augment his resources in such a manner that the entire works are completed within the contract period of **5 (Five) months** in a manner required by BHEL to match with the project schedule.

**Date of start shall be considered as date of start of earthwork (excavation or stripping or filling).**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VII: TERMS OF PAYMENT

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### 7. TERMS OF PAYMENT

The payments for works under the scope of this contract shall be as per clause no 2.6, clause 2.22 and clause 2.23 of General Conditions of Contract and Chapter X of Special Conditions of Contract.

The progressive payment against monthly running bills will be released on accepted rate / price of contract value as 100% of item rate shall be made on pro-rata basis as per monthly progress of work. BHEL decision in this regard shall be final and binding on the contractor.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VIII : Taxes and Duties

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### 8.0 TAXES, DUTIES, LEVIES (Rev 10 dated 19/08/2017)

- 8.1** The successful bidder shall furnish proof of GST registration. Registration should also bear endorsement for the premises from where the billing shall be done by the successful bidder on BHEL for this project/ work.
- 8.2** The contract price shall be inclusive of all taxes including Goods and service tax (GST), GST Cess, BOCW Cess, license charges, deposits, duties, tools, royalty, commissions or other charges, if any. Bidder should also note that no other taxes including new taxes, if imposed subsequently and variation in any taxes shall not be reimbursed by BHEL. In case, BHEL has to pay any of such taxes, BHEL shall have the right to recover the same from contractor's bills or otherwise as deemed fit.
- 8.3** GST charged in the Tax Invoice/Debit note by the contractor shall be released separately to the contractor only after contractor files the outward supply details in GSTR-1 on GSTN portal and such input tax of the invoice is matched with corresponding details of outward supply of the contractor and has paid the GST at the time of filing the monthly return.
- 8.4** Bidder shall note that the GST Tax Invoice complying with GST Invoice Rules (Section 31 of GST Act & Rules referred there under) wherein the 'Bill To' details will as below: -  
BHEL GSTN - **As per annexure-1**  
NAME - Bharat Heavy Electricals Limited  
ADDRESS - Site address
- 8.5** In case of raising any Supplementary Tax Invoice (Debit / Credit Note) Bidder shall issue the same containing all the details as referred to in Section 34 read with rule 53.
- 8.6** Bidder shall comply with the Time limit prescribed under the GST Law and rules thereof for raising of the tax invoice.
- 8.7** Bidder shall upload the Invoices raised on BHEL in GSTR-1 within the prescribed time as given in the GST Act. Bidder shall note that in case of delay in declaring such invoice in your return and GST credit availed by BHEL is denied or reversed subsequently as per GST Law , GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from the bidder along with interest levied / leviable on BHEL.
- 8.8** Way Bill: Successful Bidder to arrange for way bill / e-waybill for any transfer of goods for the execution of the contract.

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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VIII : Taxes and Duties

**8.9 TDS under Income Tax shall be deducted at prevailing rates on gross invoice value from the running bills unless exemption certificate from the appropriate authority/ authorities is furnished.**

**8.10 TDS under GST (as & when applicable) shall be deducted at prevailing rates on applicable value from the running bills**

### Annexure-1

#### State wise GSTIN Nos of BHEL

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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO            | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UNIT | QTY    | WEIGHTAGE (%) |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|---------------|
| <b>EARTH WORK</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |        |               |
|                   | Earth work In excavation, backfilling and disposal including necessary men/women, materials, equipment, loading, transportation, unloading, dewatering etc as per specification, drawing and as directed by engineer- in-charge for the following.                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |        |               |
| 1                 | Earth work in stripping of top soil upto a maximum depth of 0.30m below ground level so as to exclude all debris, grass, vegetation, bushes, trees having girth upto 300mm including roots and organic materials etc for leveling and grading including dressing to specified levels & grades and compacting the graded/stripped surface by manual/mechanical means, disposal of stripped materials within a lead upto 1km etc all complete as per specification, drawing and as directed by the engineer-in-charge.                                                                                                                                                                             | SQM  | 131618 | 3.94896954    |
| 2                 | Earth work in excavation in all types of soil including ash which can be excavated by any means including setting out, levelling, dewatering (but excluding special type of dewatering viz. well point method), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 1Km, spreading/levelling of disposed materials etc all complete for following depths below ground level.                                                                                                                                                                          |      |        |               |
| a                 | Depth from ground level but not exceeding 2 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CUM  | 3765   | 0.52511341    |
| 3                 | Earth work in excavation in soft rock (rock without any recovery of excavated materials in the form of hard stone/boulder) including weathered rock which can be excavated by means of crow bar, pick axe, pneumatic rock breaker attachment with excavator machine etc but does not require chiselling or blasting including setting out, levelling, dewatering (wherever required), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 1 Km, spreading / levelling of disposed materials etc all complete for following depths below ground level. |      |        |               |
| a                 | Depth from ground level but not exceeding 2 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CUM  |        |               |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UNIT | QTY   | WEIGHTAGE (%) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|---------------|
| 4      | <b>Preparation of sub grade by excavating earth</b> to required depth for all types of soil/ rock, dressing to camber and consolidating the base including making good the undulation etc and disposal of surplus earth within a lead upto 1 km etc. all complete.                                                                                                                                                                                                                                                                                                                                                                                                                             | CUM  | 15548 | 1.81182646    |
| 5      | <b>Earthwork in Back filling</b> upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness <b>using/with selected materials from compulsorily excavated earth available within a lead upto 1Km</b> and compacted as specified including reexcavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc all complete.for the following.                                                                                                                                                                                                                      |      |       |               |
| a      | Each layer compacted so as to achieve at least 90% maximum dry density as per IS2720 (Part-VII)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CUM  | 3887  | 0.61078198    |
| 6      | <b>Earthwork in Back filling</b> upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness <b>using/with selected materials directly from excavation</b> within a lead upto 1Km and compacted as specified including reexcavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc all complete.for the following.                                                                                                                                                                                                                                         | -    |       |               |
| a      | Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CUM  | 19315 | 1.80741898    |
| 7      | <b>Extra over ST No. 1, 2, 3 and 4</b> for carriage of excavated earth/selected materials for every 500m or part thereof beyond an initial lead of 1Km.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CUM  | 58127 | 0.71816552    |
| 8      | <b>Earthwork in backfilling</b> upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness so as to achieve required compaction <b>with approved borrowed soil (borrowed soil to be arranged by the bidder)</b> and compacted as specified including supplying boorowed soil, royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing, all lead and lifts etc all complete as per specification, drawing and as directed by the engineer for the following: |      |       |               |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UNIT | QTY   | WEIGHTAGE (%) |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|---------------|
| a                     | Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)                                                                                                                                                                                                                                                                                                                                                                                                                                               | CUM  | 28777 | 10.16125805   |
| 8 b                   | Supplying and <b>filling with selected good earth</b> of approved quality in layers not exceeding <b>300 mm loose thickness</b> using borrowed soil (borrowed soil to be arranged by the bidder) and compacted so as to achieve at least 95 % maximum dry density as per IS-2720 (Part-VII) including royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing etc all complete.                         | CUM  | 39600 | 13.98289711   |
| 9                     | <b>Supplying and filling</b> upto any depth below ground level for grading to proper grade and level in layers not exceeding 300 mm loose thickness <b>with Granular Morrum (Granular Morrum to be arranged by the bidder)</b> and compacted as specified including royalty, sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing, all lead and lifts etc all complete as per specification, drawing and as directed by the engineer. | CUM  | 6549  | 6.31319333    |
| 10                    | <b>Providing and Filling</b> in trenches, plinths, area paving and other underground structures <b>with graded stone aggregate of size range 63 mm to 45 mm in layers not exceeding 230 mm in thickness</b> including breaking of stone boulders to required sizes, filling the interstices with selected sand and compacting to 85 % of original volume of stone stack for all lifts etc. all complete. Payment shall be made for the measurement of the volume of the compacted fill.                                                        | CUM  | 5073  | 9.37769021    |
| 11                    | <b>Providing &amp; laying water bound macadam</b> base course in layers of required thickness <b>with stone aggregate 63mm to 40mm size (IRC-19 grading-1)</b> , stone screening and blinding material including screening sorting, spreading to template and consolidation with road roller including carriage, spreading and consolidation of blinding material moorum etc all complete.                                                                                                                                                     | CUM  | 3276  | 9.02889919    |
| <b>CONCRETE WORKS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |       |               |
|                       | Providing and placing concrete work including cost of labour, materials and equipment for handling, transportation, batching, mixing, placing, vibrating and curing, (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc. complete as per drawing, specifications and as per direction of engineer in charge for the following.                                                                                                                       |      |       |               |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                                                                                                                                                                                                                                                                                                          | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                   | UNIT | QTY | WEIGHTAGE (%) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---------------|
| 12                                                                                                                                                                                                                                                                                                              | <b>Concrete of grade M7.5</b> (1 part cement, 4 part sand, 8 parts of 40mm / 20mm graded aggregate by volume) as <b>filling course</b> at any depth below finished floor level, under and around foundations/floors, mass fill etc.                                                                                                                                                   | CUM  | 582 | 3.27793435    |
| 13                                                                                                                                                                                                                                                                                                              | <b>Concrete of grade M10</b> (1 part cement, 3 part sand, 6 parts of 40mm / 20mm graded aggregate by volume) as <b>lean concrete, levelling course</b> , mud mat under and around foundations/floors at any depth below finished floor level etc.                                                                                                                                     | CUM  | 137 | 0.82893503    |
| 14                                                                                                                                                                                                                                                                                                              | <b>Concrete of grade M15</b> (1 part cement, 2 part sand, 4 parts of 40mm / 20mm graded aggregate by volume) as <b>lean concrete, levelling course</b> , mud mat under and around foundations/floors at any depth below finished floor level etc.                                                                                                                                     | CUM  | 98  | 0.6749747     |
| <b>FORM WORKS</b>                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                       |      |     |               |
| <b>Providing, fixing and removing formwork at any elevations for all structures, as per specifications and including all labour, material, scaffoldings and centering complete including pockets etc. complete as per drawing, specifications and as per direction of engineer in charge for the following.</b> |                                                                                                                                                                                                                                                                                                                                                                                       |      |     |               |
| 15                                                                                                                                                                                                                                                                                                              | <b>Fairface form work</b> with good quality water proof ply wood of minimum 12mm thickness and smooth surface below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.including chamfering of edges as per drawing, specification and instruction of engineer in charge.                          | SQM  | 257 | 0.18150239    |
| <b>REINFORCEMENT</b>                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                       |      |     |               |
| 16                                                                                                                                                                                                                                                                                                              | <b>Providing, straightening, cutting, bending, placing in position</b> at all level, binding in position of steel reinforcements of TMT steel of grade Fe500D or 500EQR confirming to IS:1786 including cost of reinforcement steel, binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. | MT   | 30  | 2.56456636    |
| <b>MS EMBEDMENTS</b>                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                       |      |     |               |
| 17                                                                                                                                                                                                                                                                                                              | <b>Supply, fabricating and fixing of mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions</b> as required etc. including welding, bolting, cutting, drilling, scaffolding, setting etc. all complete.                                                                                                                         | MT   | 10  | 1.11820829    |
| <b>DOORS &amp; WINDOWS</b>                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                       |      |     |               |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO           | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UNIT | QTY  | WEIGHTAGE (%) |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|
|                  | Doors, windows, ventilators, louvers, roof ventilators, rolling shutters, partitions including all labour, material (unless otherwise specified in BOQ/contract specification), equipments, transportation, handling, preparation of working drawings etc. at all level as per specification, drawings and as directed by engineer in charge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |      |               |
| 18               | <b>Providing, fitting and fixing solid core flush door shutter</b> as per IS 2202 part II, 35mm thick homogenous particle board bonded with BWP type phenolformaldehyde synthetic resin, partical board core conforming to IS 3087 type I, 35x12 mm thick teakwood beading all around including preparation of working drawings. godrej or equivalent make mortice lock with handels on both sides,approved ISI mark anodised fittings like door stopper,300mm long tower bolts,16x300mm long aldrops ,125mm long handles on both sides etc. butt hinges, sliding bolt, knobs, (all fittings shall be anoidised aluminium color dyed), finish synthetic paint over primer, screws etc. all complete as per drawing, specification and instruction of engineer in charge. with commercial faces and teak wood edges. (Finish painting paid separately) | SQM  | 39   | 0.19259407    |
| 19               | Providing and fixing of <b>openable type steel windows/ventilator</b> with steel sections as per IS:1038, IS:1361 & IS:7452 latest revision including all fittings, metal beadings, hold fasts, shop and final painting, glazing etc. all complete. (Glazing shall be paid separately)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SQM  | 40   | 0.11779868    |
| 20               | Providing, fixing and fitting of <b>4mm thick clear float glass</b> glazing of first grade class in steel/aluminium/wooden frames, where ever required, cleaning after fixing including hardware, gaskets, clips, beadings etc. all complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SQM  | 40   | 0.06808059    |
| <b>BRICKWORK</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |               |
|                  | Brickwork masonry including all labour, material, equipment, transportation, handling, scaffolding etc. at all levels as per specification, drawings and as directed by engineer – in – charge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |               |
| 21               | <b>Providing brick work</b> in cement mortar 1:6 (1 part cement 6 parts coarse sand) in walls, chambers etc. in thickness varying from 230mm to 460mm at all depths, places and positions <b>below plinth</b> including raking out joints, curing, scaffolding etc. complete excluding plastering and painting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |               |
| a                | <b>Using fly ash lime bricks</b> confirming to IS 12894 with crushing strength of 50 kg/cm2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CUM  | 1466 | 9.69846999    |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                                           | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                         | UNIT | QTY   | WEIGHTAGE (%) |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|---------------|
| 22                                               | <b>Dismantling stone masonry work/ Brick work</b> for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc all complete as per drawings, specification and instructions of engineer in charge. | CUM  | 100   | 0.14989838    |
| <b>DAMP PROOF COURSE</b>                         |                                                                                                                                                                                                                                                                                                                                                                             |      |       |               |
|                                                  | Damp proof course including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, shuttering, centering, curing etc at all level as per specification, drawings and as directed by engineer in charge.                                                                                                      |      |       |               |
| 23                                               | Providing Damp Proof Course of 50mm thickness with 1:1.5:3 concrete (10mm and down graded aggregate) with 2% of approved admixture of water proofing compound all complete. Two layers of hot bitumen coating 85/25 grade as per IS:702 @ 1.7Kg./sqm shall be applied one before & one after the DPC.                                                                       | SQM  | 154   | 0.08102636    |
| <b>CEMENT MORTAR PLASTER</b>                     |                                                                                                                                                                                                                                                                                                                                                                             |      |       |               |
|                                                  | Cement mortar plaster including making grooves wherever required including all labour, material, scaffolding, curing etc at any level as per specification, drawings and as directed by engineer – in – charge.                                                                                                                                                             |      |       |               |
| 24                                               | <b>Providing 12mm thick plaster inside</b> the building/boundary wall in cement mortar 1:6 on walls finished to a smooth finish as per specification all complete.                                                                                                                                                                                                          | SQM  | 13127 | 3.73137323    |
| 25                                               | <b>Providing 12mm thick plaster in walls, drains/culverts</b> with a paste of neat cement @ 1kg/sqm and rubbed smooth with trowel etc. all complete.                                                                                                                                                                                                                        | SQM  | 8533  | 1.89826991    |
| <b>FINISHES TO CONCRETE / PLASTERED SURFACES</b> |                                                                                                                                                                                                                                                                                                                                                                             |      |       |               |
|                                                  | Finishes, painting to concrete, plastered surfaces including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, surface preparation, scaffolding etc. at all level as per specification, drawings and as directed by engineer in charge.                                                                                           |      |       |               |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                                                                                                                                                                                                                                                                                       | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UNIT | QTY | WEIGHTAGE (%) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---------------|
| 26                                                                                                                                                                                                                                                                                           | Two or more coats of white wash/ colour wash as per IS 627 of approved brand and manufacture to give an even shade including a priming coat as per specifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SQM  | 379 | 0.0128505     |
| <b>FLOORING AND SKIRTING</b>                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |     |               |
| <b>Flooring and skirting at all level including base layer, labour, material (unless otherwise specified in BOQ/contract specification), equipments, transportation, handling, curing, polishing etc. at all level as per specification, drawings and as directed by engineer in charge.</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |     |               |
| 27                                                                                                                                                                                                                                                                                           | <b>Providing and laying 50 mm thick heavy duty cement concrete in flooring with metallic hardener</b> pigmented topping 12mm thick uniform graded treated iron particles in flooring. Under layer of 38mm thick cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates 12.5 mm well graded) and top layer of 12mm thick metallic concrete of mix 1:2 (1 cement hardner mix with approved quality metallic hardening compound :2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges, aluminium strips etc. all complete for following (Quoted item rate shall be inclusive of providing glass joint strips) | SQM  | 201 | 0.15827861    |
| 28                                                                                                                                                                                                                                                                                           | Providing and laying granite stone slab of 20mm thickness single piece for wash basin / sink slab /facia of black or approved colour including 20mm underbed of cement mortar 1:3 with cutting,making corners, moulding and opening etc. all complete.                                                                                                                                                                                                                                                                                                                                                                                                    | SQM  | 8   | 0.04382863    |
| 29                                                                                                                                                                                                                                                                                           | <b>Providing and laying Heavy Duty dust pressed Ceramic Tiles of 7mm thick</b> of reputed manufacturer of approved finish shade and colour including 20mm underbed of cement mortar 1:3 with neat cement slurry @3.3kg/sqm etc all complete.                                                                                                                                                                                                                                                                                                                                                                                                              | SQM  | 67  | 0.06446997    |
| <b>MISCELLANEOUS WORKS</b>                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |     |               |
| <b>Miscellaneous works including all labour, material, equipment etc. at any level unless otherwise specified as per specification, drawings and as directed by engineer – in – charge.</b>                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |     |               |
| 30                                                                                                                                                                                                                                                                                           | Providing and fixing weep holes in Retaining wall, drains, etc consisting of 100 mm dia HDPE pipe sleeves with single side covering for the pipe mouth with galvanised welded wire fabric of 20 mm sq. opening all complete.                                                                                                                                                                                                                                                                                                                                                                                                                              | EACH | 901 | 0.21157039    |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                   | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UNIT | QTY  | WEIGHTAGE (%) |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|
| <b>FENCING AND GATES</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |      |               |
|                          | <b>Fencing and gates including all labour, material, equipment etc at any level as per specification, drawings and as directed by engineer – in – charge.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |      |               |
| 31                       | <b>Supplying and erecting in position 2.4 m high gavanised chain linked fencing</b> conforming to IS 2761 of 10G hot dip galvanised steel wires woven in the form of zig-zag mesh giving an opening size of 50 mm square. GI barbed wire fencing of height of 600 mm confirming to IS 298 at top of chain link fencing shall be provided with 4 strands of barbed wire hot dip galvanised wire of 12G comprising of 2 ply of wires with barbs of 16G spaced at 100mm. Cost to include for GI hook bolts, rings & washers, hot dip galvanised tension wires, 25X6 mm GI flat stretcher bar at end posts, accessories etc. all complete. (Structural post shall be paid separately under ST No. 32) | RM   | 1670 | 4.85326501    |
| 32                       | <b>Supply, fabrication and fixing of mild steel posts</b> for fencing including painting etc all complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MT   | 6    | 0.69266269    |
| 33                       | <b>Supply, fabrication and installing in position and testing MS Gates</b> out of channels, joists, angles, flats, plates, pipes, welded steel wire mesh & sheets including stiffeners, bracings, fabricated hinges, MS Aldrops with locking arrangement, tempered steel pivot, guide track of MS Tee, bronze aluminium ball bearing arrangements, castor wheels, paintings etc. all complete.                                                                                                                                                                                                                                                                                                    | MT   | 8    | 1.01694209    |
| <b>WATER SUPPLY</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |      |               |
|                          | <b>Water supply work including men, material (unless otherwise specified in BOQ/contract specification), equipment etc. at all level as per specification, drawings and as directed by engineer – in – charge.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |      |               |
| 34                       | <b>Providing and fixing in position tested heavy duty type chromium plated (CP) brass long neck bib cocks</b> including sockets, union, nuts etc all complete - <b>15mm nominal bore.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nos  | 6    | 0.00755307    |
| 35                       | <b>Providing and fixing in position heavy duty brass stop cock</b> of approved quality including all specials etc all complete - <b>15mm nominal bore.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Nos  | 6    | 0.00590054    |
| 36                       | <b>Providing and fixing in position heavy duty brass full way valve with wheel</b> of approved quality including all specials etc all complete for <b>25mm nominal bore size.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nos  | 3    | 0.00201277    |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                                                                                                                                                     | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UNIT | QTY | WEIGHTAGE (%) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---------------|
| 37                                                                                                                                                         | <b>Providing and fixing GI pipes class B</b> complete for external work with GI sockets, unions, elbows, tees, nipples etc including trenching & refilling, anti-corrosive paint etc all complete for 15mm nominal bore size.                                                                                                                                                                                                                                                                                                             | RM   | 50  | 0.01774432    |
| 38                                                                                                                                                         | <b>Providing and fixing 610mmx453mmx6mm thk mirror</b> from reputed mirror manufacturer. Mirror shall be mounted with glass adjustable revolving CP brackets with CP screws etc all complete.                                                                                                                                                                                                                                                                                                                                             | Nos  | 3   | 0.00468232    |
| 39                                                                                                                                                         | <b>Providing and fixing 25 mm diameter stainless steel towel rails (600mm X 25mm)</b> with C.P. mounting brackets all complete.                                                                                                                                                                                                                                                                                                                                                                                                           | Nos  | 3   | 0.00233056    |
| 40                                                                                                                                                         | <b>Providing and fixing C.P. Soap holder</b> mounted with C.P. screws etc all complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nos  | 3   | 0.00157843    |
| 41                                                                                                                                                         | <b>Providing &amp; fixing in position P.V.C. water tank (1000 Litres capacity)</b> of Syntex or approved equivalent including making all necessary inlet & outlet pipes, fixture, ball cocks, valves etc all complete for following capacities. GI pipes shall be paid separately under ST No. 2105.                                                                                                                                                                                                                                      | Nos  | 3   | 0.02951335    |
| <b>SANITARY WORKS</b>                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |     |               |
| <b>Sanitary work including all labour, material, equipment etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |     |               |
| 42                                                                                                                                                         | <b>Supply and fixing glazed vitreous china Wash Basin (white)</b> of approved make conforming to IS:2556 part 4 of oval shape with R.S. or C.I. brackets painted white, 15mm chromium plated brass hot & cold faucets with nylon washers, chromium plated brass chain with rubber plug, 32mm chromium plated brass bottle trap and waste of standard pattern, 32mm dia chromium plated brass trap unions, plastic connection pipe with chromium plated nuts, fittings, cutting and making good the walls where required etc all complete. | EACH | 3   | 0.04441829    |
| 43                                                                                                                                                         | <b>Providing and fixing stainless steel kitchen sink of size 610x510x200mm</b> conforming to IS: 13983 including all fittings etc. all complete.                                                                                                                                                                                                                                                                                                                                                                                          | EACH | 3   | 0.02697088    |
| 44                                                                                                                                                         | <b>Providing and fixing colour glazed vitreous china European type water closet (Floor Mounted)</b> conforming to IS:2556 with siphon, open front solid plastic seat and plastic cover, low level 12.5 litre PVC flushing cistern (same colour as WC) with valveless fittings, necessary C.P connections etc all complete.                                                                                                                                                                                                                | EACH | 3   | 0.02309898    |

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## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                                    | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                               | UNIT | QTY | WEIGHTAGE (%) |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---------------|
| 45                                        | <b>Providing and fixing white flat back glazed vitreous china urinals of size 440x265x355 mm with photo voltaic control flushing system</b> as per IS:2556 (part 6, section 1) with flush pipes, lead pipes, gratings, traps and necessary C.P. fittings etc. all complete.                                                                                                                       | EACH | 3   | 0.06037732    |
| 46                                        | <b>Supply, laying and jointing UPVC pipes of class 3</b> as per IS:4985 including bends, branches and all other necessary fittings, M.S holder bats/clamps, cutting and making good the walls and floors, jointing, testing etc all complete for following.                                                                                                                                       |      |     |               |
| a                                         | 110mm dia pipes                                                                                                                                                                                                                                                                                                                                                                                   | RM   | 50  | 0.04272692    |
| b                                         | 160mm dia pipes                                                                                                                                                                                                                                                                                                                                                                                   | RM   | 50  | 0.06859262    |
| 47                                        | <b>Providing and fixing C.I Manhole heavy duty cover of size 600mmx450mm</b> including frame from reputed manufacture etc. all complete.                                                                                                                                                                                                                                                          | EACH | 3   | 0.02783956    |
| 48                                        | <b>Providing and fixing square mouth S.W Gully trap grade 'A'</b> complete with CI grating, brick masonry chamber (Clay Brickwork in 1:6 mortar, 12mm plaster in 1:6 mortar & 1:2:4 Cement Concrete) and water tight CI cover with 300x300mm (inside). The weight of cover to be not less than 4.53 Kg and frame to be not less than 2.72 Kg etc all complete for size 150mm x 100mm P or S type. | EACH | 3   | 0.00537615    |
| 49                                        | <b>Providing and fixing 100mm heavy duty UPVC floor traps</b> with 100 mm inlet and 100 mm outlet & C.P jalli all complete.                                                                                                                                                                                                                                                                       | EACH | 6   | 0.00945991    |
| 50                                        | Providing, laying light duty non pressure <b>NP2 class RCC pipes</b> with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc complete for following.                                                                                                                                                                                                         |      |     |               |
| a                                         | 450mm dia                                                                                                                                                                                                                                                                                                                                                                                         | RM   | 162 | 0.16675229    |
| b                                         | 600mm dia                                                                                                                                                                                                                                                                                                                                                                                         | RM   | 71  | 0.09777833    |
| <b>ELECTRICAL S AND ILLUMINATION WORK</b> |                                                                                                                                                                                                                                                                                                                                                                                                   |      |     |               |
| 51                                        | Supplying, Installation & Commissioning of LED street light fitting 150 watt of crompton or similar philips make, complete with one piece of appropriate driver (integral/non-integral) and suitable for directly slipping over light mounting bracket made out of 40 mm OD pipe and suitable for lamps, JB, cabling & termination of items supplied (to be mounted on 9 mtr pole - item no. 53). | NOS. | 220 | 1.32334665    |

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## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UNIT | QTY | WEIGHTAGE (%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---------------|
| 52     | Supply and Erecting steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq. mm conforming to BIS: 2713 (part-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 SP-28 (113 kg-pole weight) with 1.5 mtr deep excavation, concreting in 1:4:8 ratio size 45 cms x 45 cms x 150 cms and pole plinth in 1:3:6 cement concreting having 300 mm height and 300 mm dia including double earthing of pole with suitable arrangement, duly painted with two coats of red oxide paint and one coat of aluminium paint to be applied after erection; the length of pole below ground to be painted with two coats of black bituminous paint. the pole shall be complete with JB, fuse and minor fabrication as below :<br>i) drilling 20 mm dia hole at about 2.5 mtr from ground level for wire leads from junction box to light fixture.<br>ii) drilling 15mm dia holes at about 0.7 and at 2.5 mtr from ground level and welding 12 mm nuts for using a 12 mm GI bolt for fastening earth conductors.<br>iii) welding required holes for fixing pole cap of street light bracket.<br>iv) welding diametrically 10 mm MS round 30 mm below pole top edge for clipping wire leads . | NOS. | 110 | 1.50945478    |
| 53     | Supply of weather proof flood light luminaries of crompton make (FBD 1425/40 with high pressure sodium vapour lamp 1x 400 Watt along with non-integral type control gear box having adequate number of terminal connectors for terminating two cable of 3x 10 sqmm AL and suitable for out door application) or equivalent in Bajaj, Phillips only, including supply & fixing cables between the control gear box and light luminaries and mounting fixture with hardware for mounting of light luminaries and control gear box on pole type 410 SP-28.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | NOS. | 7   | 0.0604507     |
| 54     | Installation & commissioning of flood light luminaries, control gear box, cabling & termination for Sl no.3 (Items supplied above)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | NOS. | 7   | 0.0057854     |

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## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UNIT | QTY | WEIGHTAGE (%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---------------|
| 55     | Engineering, supply and installation of lattice type structural tower of height 15m. Tower shall be fabricated in three section of equal length of 5 meter each. Preparation of fabrication drawing & its approval from BHEL. Brief details are as given below; Tower shall be adequately strong to withstand heavy wind. No stay/guy ropes shall be tied with it. At top of the tower adequate size of platform shall be provided with railing around the platform for mounting of lighting luminaires (tentatively 12 fitting on each tower) and maintenance purpose, floor of platform shall be covered with chequered plate. A ladder along with protective cage shall be provided along the height of tower. It should be painted with one coat red oxide primer and two coats of aluminium paint after installation. Each tower shall be provided with power distribution box out door type and should have provision of terminating one number incoming and eight out going cable. Erecting at site including all civil works like excavation, casting of foundation of required size and depth with concrete of grade 1:2:4 with base plates, grouting of lattice structure, one earth pit as per BIS standard is to be made near the tower and earthing of the tower including supply of material etc. complete. | NOS. | 7   | 1.43415097    |
| 56     | Supply, installation & commissioning of 400W LED flood light luminaires of Bajaj, Crompton, Phillips or equivalent, with appropriate JB integral/ non integral type including cables for interconnection. (these fitting shall be mounted on lighting mast /tower, on each tower 8 such fitting shall be mounted).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NOS. | 56  | 0.80311635    |
| 57     | Supply of cables 3-1/2 core x 95 sqmm aluminium armoured PVC insulated cable (three and half core) confirming to IS 1554 ( part-I) (to be used for sheds as well as open storage yard wherever required)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | M    | 632 | 0.44212573    |
| 58     | Installation of cables 3-1/2 core x 95 sqmm aluminium armoured PVC insulated cable confirming to IS 1554 ( part-I) including laying of cable below ground, excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type lugs, providing sand layer below/ above the cable, brick laying both side/above the cable and back filling etc complete. Cables are to be laid from 415 Volt AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | M    | 632 | 0.12118151    |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UNIT | QTY  | WEIGHTAGE (%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|
|        | distribution board to feeder pillar board, feeder pillar board to lighting mast / tower & for sheds.                                                                                                                                                                                                                                                                                                                                                                                                    |      |      |               |
| 59     | Supply of cables 2 core x 10 sqmm aluminium armoured PVC insulated cable confirming to IS 1554 (Part-I)                                                                                                                                                                                                                                                                                                                                                                                                 | M    | 1320 | 0.25000566    |
| 60     | Installation of cables 2 core x 10 sqmm aluminium armoured PVC insulated cable confirming to IS 1554 (Part-I) including laying of cable below ground, excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type lugs, providing sand layer below/ above the cable, brick laying both side /above the above the cable and back filling etc complete. Cables are to be laid from 415 Volt AC power feeder pillar board to lighting poles & pole to pole.      |      | 1320 | 0.17611592    |
| 61     | Supply of cables 3-1/2 core x 185 sqmm aluminium armoured PVC insulated cable (three and half core) confirming to IS 1554 (Part-I)                                                                                                                                                                                                                                                                                                                                                                      | M    | 1605 | 1.47958489    |
| 62     | Installation of cables 3-1/2 core x 185 sqmm aluminium armoured PVC insulated cable confirming to IS 1554 (Part-I) including laying of cable below ground, excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type lugs, providing sand layer below/ above the cable, brick laying both side /above the above the cable and back filling etc. Cables are to be laid from transformer sub station to 415 Volt AC distribution board.                       | M    | 1605 | 0.32881667    |
| 63     | Supply of cables 3 -1/2 core x 35 sqmm aluminium armoured PVC insulated cable (three and half core) confirming to IS 1554 (Part-I)                                                                                                                                                                                                                                                                                                                                                                      | M    | 1107 | 0.39304588    |
| 64     | Installation of cables 3 -1/2 core x 35 sqmm aluminium armoured PVC insulated cable confirming to IS 1554 (Part-I) including laying of cable below ground, excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type lugs, providing sand layer below/ above the cable, brick laying both side /above the above the cable and back filling etc. Cables are to be laid from transformer sub station to 415 Volt AC distribution board to store yard & sheds. | M    | 1107 | 0.21225938    |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UNIT | QTY | WEIGHTAGE (%) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---------------|
| 65     | Supply & installing 3 phase metering and power distribution board complete with:<br>(1) incoming SFU TPN 400 Amps - 1no,<br>(2) outgoing SFU TPN 200 amps -2nos.<br>(3) outgoing SFU TPN 100 amps -2nos.<br>(4) outgoing SFU TPN 32 amps -2nos.<br>3 phase electronic energy meter - BHEL / L&T / GEC make.<br>ammeter, voltmeter and selector switches for both - AE and Kaycee make.<br>Phase indication lamps, HRC fuses for IC and OG feeders, cable glands, power terminals for cables termination, cable lugs and provision for doubly earthing the panel enclosur. Panel enclosure shall be made of sheet metal thichnness not less than 1.6 mm and suitable for out door installation, modular construction, hinged door with locking arrangement, base frame, should have slopped canopy, duly painted with first coat of primer and two coats of synthetic enamel paint (interior with white paint and exterior with light grey as per shade 5, is 630) internal power distribution to devices shall be with al busbars or copper flexible single core PVC cables of 1.1 Kv grade, control wiring with 1.5 sqmm, suitable stool made out of MS structure of 1.2 meter high for mounting of panel with anchoring arragement at foundation, suitable for bottom entry of cables. | NO   | 3   | 0.37109528    |
| 66     | Providing suitable foundation for mounting AC distribution board as specified in Sl. No. 15, installation & commissioning of panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NO   | 3   | 0.022903      |
| 67     | Supply of 415 Volt AC, 3 phase /four wire power feeder pillar board, board shall be comprises of three number and one number aluminium bus bar for phase & neutral respectively. Bus bar rating shall be 200 amps and shall be mounted on epoxy insulator of 1.1 Kv grade, each bus bar shall have drilled hole for connecting incoming / out going cables, provision for earthing the panel enclosure. Panel enclosure shall be made of sheet metal thichnness not less than 1.6 mm and suitable for out door installation, hinged door with locking arrangement, base frame, should have slopped canopy, duly painted with first coat with primer and two coats of synthetic enamel paint (interior with white paint and exterior with smoke grey as per IS), suitable stool made out of MS structure of 1.2 meter high for mounting of panel with anchoring arragement at foundation .                                                                                                                                                                                                                                                                                                                                                                                                | NO   | 7   | 0.19577362    |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

| SL. NO                                                                           | DESCRIPTION OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT    | QTY | WEIGHTAGE (%) |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|---------------|
| 68                                                                               | Providing suitable foundation for mounting 415 Volt AC power feeder pillar board as specified in Sl. No. 68, installation & commissioning of panel.                                                                                                                                                                                                                                                                           | NO      | 7   | 0.03915063    |
| 69                                                                               | Supply and installation suitable electrical pump for minimum head of 10m (but not less than 2 HP) of reputed manufacturer like Suguna/ CRI/ Kiloskar/ Shakti/Sharp/ Crompton including all accessories, starter, DB, etc. and to be connected to over head tank from water storage tank below GL. Guarranty/warranty card to be submmitted to BHEL. Suction, discharge GI pipes shall be paid seperatly under relevant items. | NO      | 2   | 0.03507133    |
| <b>PROVIDING 6" DIA. BOREWELL WITH SUBMERSIBLE PUMP OF 3HP CAPACITY – 2 NOs.</b> |                                                                                                                                                                                                                                                                                                                                                                                                                               |         |     |               |
| 70                                                                               | Providing 6" dia. boring upto depth of 150 ft. with truck mounted mechanical rig machine with yield test of water.                                                                                                                                                                                                                                                                                                            | Each    | 2   | 0.10271578    |
| 71                                                                               | Extra for boring over 150 ft. depth for every additional 10 ft. or part thereof.                                                                                                                                                                                                                                                                                                                                              | Per ft  | 50  | 0.04106529    |
| 72                                                                               | Supply & fixing 6" dia pvc heavy duty (8-10 kg pressure) casing pipe of standard make (kishan/kasta or equivalent) with approval of BHEL in both the borings.                                                                                                                                                                                                                                                                 | Per ft. | 120 | 0.02773497    |
| 73                                                                               | Supply and installation of electrical submersible pump (minimum 3 HP) of standard make (Crompton Greaves/CRI pumps or equivalent) as per approval of BHEL with all accessories, console panel, pvc coated sling wire, submersible cable of required length & 1/4" dia HDPE suction pipe 120 ft. length.                                                                                                                       | Each    | 2   | 0.05054484    |
| 74                                                                               | Extra over initial length of HDPE suction pipe beyond 120 ft.                                                                                                                                                                                                                                                                                                                                                                 | Per ft. | 30  | 0.00608419    |

### Instructions to the bidders

- Bidders shall quote Total Lump-sum Price for the entire scope of work in Rupees in VOL II PRICE BID at BHEL E-procurement Portal.** Any other entry elsewhere in the offer of the bidder shall be treated as Null and Void.
- This Total Lump-sum Price shall be distributed based on the BHEL fixed percentage weightages w.r.t the total Total Lump-sum Price quoted by the bidder for the subject tender.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX WEIGHTAGES & FACTORS PERTAINING TO SCHEDULE OF QUANTITIES

3. BHEL has pre-fixed the Weightage/Factor as detailed above in this chapter for deriving the Unit Rates. By multiplying BHEL pre-fixed the Weightages / Factor and the total prices derived in sl no. 2 above; unit rate of individual items shall be derived. Unit Rate/Item Rate thus arrived shall be rounded off to two decimal places.
4. Based on the quantities of individual item and the item rates arrived in Sl No 3 above, the total amount for individual items shall be derived. Total amount thus derived shall be rounded off to two decimal places.
5. **Grand Total amount for the work shall be derived by BHEL by summing up respective total amounts.**
6. **Bidders to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed at the unit rate arrived at as per Sl No.3 above.**
7. For the convenience of bidders, BHEL has issued an excel sheet with all the requisite formulae as described above. ***However the referred excel sheet shall not form part of contract document. Further, this sheet should not be uploaded at the e-Portal.***