



**BHARAT HEAVY ELECTRICALS LTD.**  
 (A GOVT. OF INDIA UNDERTAKING)  
 P.O BHEL Jhansi - 284120, INDIA  
 Tel.:0510-277001/2412260  
 Website : jhs.bhel.com

**PURCHASE ENQUIRY**

ENQ NO/DT: E0630006 23/09/23  
 REV NO/DT: 1 30/11/23

PAGE 1  
6

|   |  |
|---|--|
| OUR ABOVE ENQUIRY OF PREVIOUS REV & DATE IS AMENDED WITH FOLLOWING CHANGED / ADDED ITEMS. |  |
| Enq Due on:   | 08-12-23 FRIDAY                          |
| Close at:   | 13:15 Open at:14:00                      |
| Matcat:   | 061001 CONTINUOUSLY TRANSPORT            |
| Validity:   | 120 days from Technical bid opening date |
| IEM:  | AS PER TENDER DOCUMENT                   |
| TOP:  | See Special Remarks                      |
| RA:   | BHEL reserves the right to conduct RA    |
| REQUIRED:   |  |
| Est. Value:   | Item wise                                |
| Bid Type:   | TWO BID                                  |
| Tot Item:   | 5  |
| Delivery:   | FOR Jhansi                               |
| E-Proc:   | Yes                                      |

ITEM NO : 1 **DELETED** PSL QTY/UM: 100.00 RL  
 MATL CODE : TR872067T201 PO QTY /UM: 12200.00 KG  
 DESTINATION: JS

| DESCRIPTION   | DELIVERY | QUANTITY (PSL UM) |
|---|----------|-------------------|
| NOMEX COVERED CTC COND.<br>7//2.0X9.2X107 MTR LG<br>AS PER SL. NO. 01 OF ATTACHED<br>ANNEXURE ES NO 626596A/627061<br>REV-01 DT 05.08.2023 FOR IGBT EMU<br>TRANSFORMER. | NOV-23   | 50.00             |
|   | JAN-24   | 50.00             |

ITEM NO : 2 PSL QTY/UM: 10.00 RL  
 MATL CODE : JS9006275290 PO QTY /UM: 1510.00 KG  
 DESTINATION: JS

| DESCRIPTION  | DELIVERY | QUANTITY (PSL UM) |
|--|----------|-------------------|
| C.T.C COND.13 // 1.8 X 4.0 X 186<br>MTR LG AS PER SL NO 2 OF ATTACHED<br>ANNEXURE ES NO 625668 DT 23.03.2022<br>REV.01 FOR 6531 KVA. | JAN-24   | 10.00             |

ITEM NO : 3 PSL QTY/UM: 55.00 RL  
 MATL CODE : JS9006275300 PO QTY /UM: 7590.00 KG  
 DESTINATION: JS

| DESCRIPTION  | DELIVERY | QUANTITY (PSL UM) |
|--|----------|-------------------|
| C.T.C. COND. 19//1.8X3.6X130 MTR LG<br>AS PER SL NO 1 OF ATTACHED ANNEXURE<br>ES NO.625669 DT 26.10.19 REV 00<br>FOR 6531/7775 KVA.<br><br>NOTE: CTC TO BE WOUND ON 200 MM I/D<br>OF DRUM. | DEC-23   | 10.00             |
|  | JAN-24   | 30.00             |
|  | FEB-24   | 15.00             |

ITEM NO : 4 PSL QTY/UM: 180.00 RL  
 MATL CODE : JS9006275280 PO QTY /UM: 55596.60 KG  
 DESTINATION: JS

| DESCRIPTION   | DELIVERY | QUANTITY (PSL UM) |
|---|----------|-------------------|
| C.T.C COND.21//1.7X3.4X 295 MTR LG<br>AS PER SL NO 1 OF ATTACHED ANNEXURE<br>ES NO.625668 DT 23.03.22 REV 01<br>FOR 6531 KVA. | DEC-23   | 60.00             |
|   | JAN-24   | 80.00             |
|   | FEB-24   | 40.00             |

*Man*



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 REV NO/DT: 1 30/11/23

PAGE 2  
6

ITEM NO : 5 PSL QTY/UM: 60.00 RL  
 MATL CODE : JS9006277860 PO QTY /UM: 14700.00 KG  
 DESTINATION: JS

| DESCRIPTION                                       | DELIVERY | QUANTITY (PSL UM) |
|---|----------|-------------------|
| C.T.C. 21// 1.7 X 3.4 X 234 MTR LG                | DEC-23   | 20.00             |
| AS PER SL.NO.1 OF ATTACHED ANNEXUR                | JAN-24   | 40.00             |
| EES NO.626816 DT 22.07.23 REV 01<br>FOR 7775 KVA. |          |                   |

ITEM NO : 6 **DELETED** PSL QTY/UM: 40.00 RL  
 MATL CODE : JS9006277870 PO QTY /UM: 2800.00 KG  
 DESTINATION: JS

| DESCRIPTION  | DELIVERY | QUANTITY (PSL UM) |
|--|----------|-------------------|
| C.T.C. 25// 1.7 X 3.4 X 56 MTR LG                  | NOV-23   | 40.00             |
| AS PER SL.NO.2 OF ATTACHED ANNEXURE                |          |                   |
| ES NO. 626816 DT 22.07.23 REV 01<br>FOR 7775 KVA . |          |                   |

ITEM NO : 7 PSL QTY/UM: 64.00 RL  
 MATL CODE : JS9006282070 PO QTY /UM: 6912.00 KG  
 DESTINATION: JS

| DESCRIPTION   | DELIVERY | QUANTITY (PSL UM) |
|---|----------|-------------------|
| NOMEX COVERED C.T.C.                                      | DEC-23   | 20.00             |
| 25//1.55 X 3.35 X 91 MTR LG                               | JAN-24   | 25.00             |
| AS PER SL NO.4 OF ATTACHED                                | FEB-24   | 19.00             |
| ANNEXURE ES NO.626816 DT/22.07.23<br>REV 01 FOR 7775 KVA. |          |                   |

**SPECIAL REMARKS:**

- RE-TENDER HAS BEEN ISSUED AND REQUESTED TO SUBMIT OFFER AS PER TENDER DOCUMENT ANNEXURE-I REV-01.
- 1. ENQUIRY IS FLOATED IN "TWO BID" SYSTEMS THROUGH E-PROCUREMENT (<https://eprocarebhel.co.in>) FOR PROCUREMENT OF CTC AS PER TENDER DOCUMENT ANNEXURE-I TO ANNEXURE-V.
- 2. ALL THE TENDER DOCUMENTS SPECIFICATIONS AND GENERAL TERMS AND CONDITIONS OF ENQUIRY IS UPLOADED AT OUR E-PROCUREMENT PORTAL <https://eprocarebhel.co.in>.
- 3. PLEASE READ ALL THE DOCUMENT CAREFULLY BEFORE SUBMITTING THE OFFER.
- 4. DULY FILLED, SIGNED AND STAMPED COPY OF TENDER DOCUMENTS, SPECIFICATIONS, GTC OF ENQUIRY AND PQR RELATED SUPPORTING DOCUMENTS SHALL BE UPLOADED AT E-PROCUREMENT PORTAL (<https://eprocarebhel.co.in>) FAILING WHICH OFFER MAY LIABLE FOR REJECTION.
- 5. SUBMISSION OF TENDER DOCUMENT THROUGH OTHER MODE SHALL NOT BE ACCEPTED.
- 6. BIDDERS SHALL QUOTE THEIR RATES AS PER PRICE BOQ FORMAT UPLOADED ON E-PROCUREMENT PORTAL ELSE OFFER SHALL BE REJECTED.
- 7. INSPECTION SHALL BE DONE BY BHEL AT BHEL JHANSI AND AS PER TENDER DOCUMENT.
- 8. BHEL WILL CONDUCT REVRESE AUCTION AS PER TENDER DOCUMENT ANNEXURE-I.

In case the bidder has not submitted PAN No, TIN No. and E-mail ID, the bidder has to submit the same along with the copy of PAN No and TIN No. Else his offer will be liable to be rejected.

If you are not in a position to quote due to any reason, you must send regret letter titled enquiry no. etc, failing which you may not be considered for sending future enquiries.

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## PURCHASE ENQUIRY

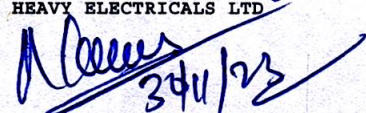
ENQ NO/DT: E0630006 23/09/23  
REV NO/DT: 1 30/11/23

PAGE 3  
6

ENCLOSERS:

FOR AND ON BEHALF OF

BHARAT HEAVY ELECTRICALS LTD.

  
NAVEEN KR MAHASETH  
MANAGER (CMM)

Email:-nkmahaseth@bhel.in

\*\*\*\*\* END OF PURCHASE ENQUIRY \*\*\*\*\*

### NOTE :

- \* THE BIDDER IS INFORMED THAT THE GENERAL TERMS & CONDITIONS OF ENQUIRY (JHS 2055A Rev 03) WHICH ARE UPLOADED AT <https://jhs.bhel.com/apps/sip/index.php> AT (TERMS & CONDITION -> FOR ENQUIRY ) LINK, ARE TO BE READ BY THE BIDDER BEFORE SUBMITTING QUOTE IN THE ENQUIRY. BHEL SHALL CONSTRUCT THE PARTICIPATION BY THE BIDDER IN ENQUIRY AS ACCEPTANCE TO THE GENERAL TERMS AND CONDITIONS OF ENQUIRY.
- \* SUPPLIERS ARE REQUESTED TO INFORM US WITH VALID CERTIFICATE, IF THEY ARE REGISTERED UNDER MSMED ACT'2006. (APPLICABLE FOR INDIAN SUPPLIERS ONLY).
- \* FOR SUPPLIERS SUPPLYING FROM OUTSIDE THE LOCAL AREA OF BHEL JHANSI, ENTRY TAX WILL BE APPLICABLE. SUPPLIERS SHOULD NECESSARILY INDICATE RATE OF ENTRY TAX SEPARATELY WHEREVER APPLICABLE. THEY SHOULD ALSO MENTION THE ENTRY TAX CHARGED SEPARATELY IN THE INVOICE.
- \* FOR SUPPLIERS SUPPLYING FROM OUTSIDE UP, IN CASE THE OFFER IS SILENT ON ENTRY TAX, IT SHALL BE LOADED SUITABLY WITH THE APPLICABLE RATES
- \* IN CASE IF THERE IS ANY DIFFERENCE BETWEEN THE 'SPECIAL REMARKS/ANNEXURES' OF THE ENQUIRY AND THE PREPRINTED TERMS & CONDITIONS (REF JSC140/M2053), THE REQUIREMENT GIVEN IN REMARKS WILL PREVAIL.
- \* Reference Sl. No. 2(B) of General Terms and Conditions regarding option for offer submission through Email addressed to [tenderbox.jhs@bhel.in](mailto:tenderbox.jhs@bhel.in) , please note that the maximum mail size including attachments should not exceed 15 MB , otherwise the offer shall not be delivered due to size limitation and bidder sending mail attachments more than 15 MB will have no claim whatsoever on the subject tender . Also due to any technical snag , if offer has not reached [tenderbox.jhs@bhel.in](mailto:tenderbox.jhs@bhel.in) , it will be bidder's sole responsibility to ensure offer submission through alternate routes before the due date and time .BHEL will not entertain any such claim for non-receipt of offer on time .

**Terms & Conditions for supply of CTC Copper Conductors on finished basis against Enquiry No. E0630006 through E-procurement .**

1. **General:-** E-tenders are invited in Two-Part Bid system for purchase of CTC Copper conductors as per various drawings/ Specifications and terms & conditions mentioned in the Annexures -“I to V” on finished & returnable drum basis. The supplies against this contract enquiry shall be subject to our General Terms and conditions of enquiry and PO. In addition, the terms and conditions given under this annexure shall specifically apply to this enquiry. If any difference between the General Terms and conditions of enquiry, purchase order, the conditions included in this annexure shall prevail.

The offer of the bidders who are in the banned list as also the offer of the bidders who engage the services of the banned firms shall be rejected. List of banned firms is available on BHEL website: [www.bhel.com](http://www.bhel.com). Likewise, offers of those bidder(s) will not be considered who have been suspended (under hold / delisting) by BHEL, Jhansi during the given period.

Please upload your best quotation/ offer on <https://eprocurebhel.co.in> for the requirement strictly as per schedule of price format before due date & time as mentioned in “PURCHASE ENQUIRY”.

Your best quotation/offer for the requirement mentioned in “PURCHASE ENQUIRY”, in line with our terms and conditions, should be submitted online via e-procurement system only. It shall be the responsibility of the bidder to ensure that the Tender is submitted on or before the due date. Part-I bids shall be opened through e-procurement Portal. Detailed Tender documents can be downloaded from the following websites: - a) <https://eprocurebhel.co.in/> b) [www.bhel.com](http://www.bhel.com)

2. **Procedure for Bid submission** :- Offer shall be submitted by the bidders in two parts;-

**Part – I Technical cum Commercial bid**

A- Part-I of the bid shall contain complete detail of the product offered, all techno-commercial terms & conditions and acceptance to the following: -

- (i) Duly signed & sealed copy of **Annexure-I**.
- (ii) Duly filled, signed & sealed copy of **Annexure-II**.
- (iii) Duly filled, signed & sealed copy of Qualifying Requirement (PQR) **Annexure- III** with authenticated copy of all supporting documents.
- (iv) Un-price format- **Annexure-IV**.
- (v) Duly filled, signed & sealed copy of Integrity Pact **Annexure-V**.
- (vi) Duly sealed and signed copy General Terms and Conditions (GTC) Rev-3 of Enquiry and specification AA28129 Rev 04, AA28144 Rev 03 & AA22901 Rev-05.

B- In case it becomes necessary to deviate in any of the above, the deviations must be clearly brought out in bid Part-I of the offer. Any deviation to INTEGRITY PACT' is not acceptable. Copy of un-priced bid with status “quoted (Q) & un - quoted (NQ)” must accompany bid part-I.

Bidders to mandatorily put sign and seal on all documents before uploading at e-procurement cite <https://eprocurebhel.co.in>

**Part - II Price bid**

Bidders have to quote their rate in as per attached Price BOQ formats only. Price bid form are to be filled in e-procurement module using Class-III digital signature.

Both Part –I (**Technical cum Commercial bid**) & Part –II (**Price bid as per uploaded Price BOQ formats**) of the offer shall be duly filled, sealed and signed copy to be uploaded by bidders at e-procurement site only.

**Terms & Conditions for supply of CTC Copper Conductors on finished basis against Enquiry No. E0630006 through E-procurement.**

**Note: -**

- . Please note that Part Supplies offered for tender BOQ shall disqualify the bidder's offer.
- . Documents and Credential as per Technical & Financial PQR, Techno Commercial Bids and Price Bids should be uploaded on the e-procurement portal.
- . Bidders to ensure that Third party/customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document/certificate issuing authority such as name & designation of Issuing Authority and its organisation contact number and email Id etc. In case the same found not available, Purchaser has right to reject such document from evaluation.

3. **Bid Opening:** - The 'Techno-commercial' part of the bid i.e. Bid Part –I of the offers shall be opened on the due date of tender opening. Clarifications, wherever required on this part, shall be obtained from the bidders for their evaluation. The Price bid Part-II of such vendors alone shall be opened whose techno-commercial bids are found acceptable. The date of 'Price bid -Part II' opening shall be intimated later on. Before price bid opening / RA (reverse auction) all formalities for registration has to be completed by the bidders as per new supplier link at [www.bhel.com](http://www.bhel.com).

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

4. **Pre Qualification Criteria :** For Pre-qualification criteria, refer Annexure-III

Offers of those bidders who meet the Pre-qualification criteria mentioned in Annexure-III will be accepted. Any deviation from these shall render offer submitted by bidder as rejected.

\* Bidders have to submit duly filled, signed & sealed copy of Annexure-III with all relevant documents as required.

5. **Bid evaluation:** The bid shall be evaluated on total delivered cost to BHEL (landed cost net of input tax credit) taking into account all duties / taxes / Cess as per prevailing structure on date of bid opening date (bid part-I) and based on the LME CSP & SBI TT Selling rate (US\$-INR) prevailing on the date of bid opening date (bid part-I).

If LME CSP rate and SBI TT selling rate is not available on Part-I bid opening date due to holiday then LME CSP rate and SBI TT selling rate prior to Part-I bid opening date shall be considered.

Bidders may note that quoted rates shall be loaded for any deviation from the terms & conditions given in this enquiry, to arrive at landed cost and same shall be communicated to techno-commercially suitable bidders before price bid opening.

Evaluation of tender shall be done on item wise L1 basis. Although there are 7 items in purchase enquiry in which item no 01 & 06 are deleted and balance 5 items are categorized in two items as per Para-6 below. Accordingly, evaluation shall be done for these 2 category items as mentioned at Para-6 below.

6. **Technical Parameters and Tendered Quantity:-**

| Sl no | Item description   | Purchase Enquiry Item number | Qty in Kg |
|-------|--|------------------------------|-----------|
| 1     | C.T.C Conductor 13 // 1.8 X 4.0 X 186 MTR LG as per sl no 2 of attached Annexure ES NO 625668 dt 23.03.2022 rev.01 for 6531 KVA. | 2                            | 1510      |
| 2     | CTC Conductor 19//1.8x3.6, 21// 1.7 x 3.4 , 25//1.55 x 3.35 as per Attached Annexures Es no- 626816 and 625669.                  | 3 to 5 & 7                   | 84798.60  |

**Important note:**

**Terms & Conditions for supply of CTC Copper Conductors on finished basis against Enquiry No. E0630006 through E-procurement .**

- Quantity mentioned in purchase enquiry are insulated weights which include Bare and insulation of Copper conductor.
- Enquiry Item no-01 & 06 are deleted.

7. **Pricing Terms** :- Material will be supplied on finished basis as per pricing terms given below:-

A) **LME CSP for Copper & Exchange rate for US \$**:- LME CSP & Exchange rate will be corresponding to 3rd LME working day from the date of letter of intent (LOI) / instruction for copper booking (excluding date of LOI). Exchange rate shall be SBI TT Selling rate. In case of SBI TT selling rate is not available due to holiday on the 3<sup>rd</sup> LME working day, then SBI TT selling rate of next working day shall be considered.

B) **Premium (USD / MT)**:- 190. This will be firm through out the validity of contract.

C) **Multiplication factor (MF)** :- 1.055\*

\*This is as per notional customs duty, presently it is 1.055

D) **Copper Rate (Rs / Kg)**:- (LME CSP + Premium) X Exchange rate X MF/1000.

E) **Fabrication Rate (Rs / KG)**:- To be quoted by bidders in E-procurement Price BOQ format.

F) **PO Rate**:- Sum of D + E.

Premium & fabrication rate shall be firm throughout the validity of the contract. The fabrication rate shall be inclusive of all tooling cost, enameling /insulation cost, packing, freight, insurance and forwarding charges etc. and no extra charges shall be payable on whatsoever account.

While quoting the rates, bidders must take into account the following factors in addition to whatever they deem fit:

- No extra charges shall be paid for packing, forwarding, radial insulation, fumigation, weight per drum and Cross section of conductor etc.
- Bidders shall quote their most competitive rates, which shall be valid regardless of the quantity that may be awarded to them.
- Rate quoted on other base prices shall be rejected.

The packing material i.e. drums on which the CTC Copper Conductors shall be supplied can be **re-usable** and will remain property of the supplier. Supplier shall time to time collect the same at their own cost so that work space at BHEL is not limited due to empty drums. Benefit of the saving on this account to be passed on, while quoting the rates. **The empty drum will be collected by the suppliers from BHEL works at their own cost.**

8. **PVC (Price variation Clause) Applicable**: Yes, as per pricing Terms mentioned at clause 7.

9. **Transit Insurance**: - By the bidder.

10. **Number of Suppliers**: - We need 2 suppliers for SI no- 2 as mentioned at Para-6 for execution and the tentative distribution of quantities among L1 & L2 would be in the ratio of ~~70:30~~ **69.96:30.04**.  
Number of minimum suppliers required to execute this contract may change depending upon committed capacity and also acceptance to counter offer, if any, made by BHEL. Quantity distribution to bidders shall be limited to (n-1) limited to 2 bidders where n is number of techno – commercially qualified bidders and shall be as shown below.

| n | L1    | L2    | TOTAL |
|---|-------|-------|-------|
| 1 | 100   | -     | 100   |
| 2 | 69.96 | 30.04 | 100   |

**Terms & Conditions for supply of CTC Copper Conductors on finished basis against Enquiry No. E0630006 through E-procurement.**

Refer quantity distribution sheet attached separately.

Quantity distribution shall not be applicable for SI no- 01 mentioned at Para-6.

11. **Vendors Approved by BHEL's Customers:** - Bidders may note that CTC Copper Conductors for most of the customers is to be sourced from customer's approved vendors only. In those cases, BHEL would place purchase orders pertaining to requirement of such contracts on the approved vendors of respective customer only. The percentage ordering, as per the contract, may therefore vary depending upon the nature of orders received by BHEL on account of sourcing from customer approved vendors.
12. **Quantity Tolerance:** - Against individual P.O. items quantity tolerance shall be  $\pm 2\%$ . However, requirements such as the specified length/No. of pieces and other dimensions shall be strictly adhered to.
13. **Inspection of material:** -  
Test Certificates shall be as per annexures provided at the time of issuing of purchase order, purchase specifications, QA plan etc. and must accompany with each lot against supply. Final inspection for acceptance of quality and quantity shall be done at BHEL's works after receipt of material and results shall be binding on the suppliers.
14. **Replacement of rejected Goods:** - Final inspection for acceptance of quality shall be at BHEL's works after receipt of material and results shall be binding on the suppliers. In case of rejection due to non compliance to agreed specification and for the reasons attributable to the vendor, the materials shall be replaced by vendor free of charge on "FOR BHEL works basis" including interlay cost elements such as total transportation, insurance and other taxes / levies etc as applicable. The rejected goods shall be subsequently returned to the vendor at his cost.
15. **Taxes & Duties:** - All taxes & duties shall be paid extra and as applicable at the time of dispatch within India only will be paid / reimbursed by BHEL and same will be loaded for price comparison on delivered cost to BHEL (i.e. landed cost net of input tax credit).
16. **Payments Terms:** - 100% payment within 90 days of receipt of material (45 days for MSE / NSIC registered suppliers as per relevant act in force), subject to acceptance of material at BHEL, on direct presentation of the documents.  
Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate (as on date of Part I bid opening) + 6%, for the purpose of bid evaluation.

**For more details refer clause 15 of General terms and conditions of enquiry rev03.**

17. **Terms of delivery:** - On FOR BHEL Jhansi basis.
18. **Guarantee Clause:-** CTC shall be free from any kind of manufacturing defects and shall be under guarantee for a period of 12 months from the date or until testing of transformers using CTC supplied under this contract, whichever occurs earlier.

If the item supplied is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation or any mutually agreed period. The rejected goods shall be taken away by the Seller at his cost and replaced on Delivered Duty Paid (DDP) (FOR - BHEL Stores/ designated destination basis) within such period. In the event of the Seller's failure to comply, Purchaser may take action as appropriate, including Repair / Replenish rejected goods & disposal of rejections, at the risk & cost of the Seller.

In case the defects attributable to Seller are detected during processing of the goods at purchaser's/ his subcontractor's works, the Seller shall be responsible for free replacement/ repair of the goods as required by the purchaser.

**Terms & Conditions for supply of CTC Copper Conductors on finished basis against Enquiry No. E0630006 through E-procurement .**

19. **Short Closure:** - BHEL reserves the right to short close tender at any point of time during validity of the tender.
20. **Validity of Offer:** - Offer should be valid for a period of 120 days from the date of techno-commercial bid opening date (part-1) for finalization of the contract.
21. **Levy of Penalty for delayed performance:** - As per Clause no: 8 of GTC of enquiry rev 03.
22. Compliance to **Make In India** circular issued by Gov.  

“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 preference to Class-I local supplier is, as defined in Public Procurement (Preference to Make in India) order 2017 dated 16.09.2020 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.”
23. Tenders shall be submitted strictly in accordance with the requirements of the above tender documents
24. Standard pre-printed terms & conditions of the tenderers may not be considered valid and offer may liable for rejection.
25. All the above tender documents shall automatically become a part of the Order/Contract after its finalization.
26. All corrigenda addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on BHEL websites only ([www.bhel.com](http://www.bhel.com) & <https://eprocurebhel.co.in> under subject tender reference. Bidders are requested to visit our websites from time to time to keep themselves updated. Bidders may go through the Sellers' manual & Help documents provided on E-Procurement Portal website & obtain required Digital Signature Certificate for participating in the subject Tender.
27. Bidders to submit their offers strictly in line with the form available at e-procurement portal.
28. **Integrity Pact (IP) – Independent external monitor (IEM) :-** As per Annexure-V
29. Commercial Conditions quoted by the vendor in any place including as stated in bidder's 'General Terms and Conditions' if any, shall not be binding on the Purchaser and the conditions contained in this annexure, including General terms & Conditions rev 03 of enquiry shall only prevail.

K.Saravanan  
DGM(CMM)

Naveen Mahaseth  
Mgr (CMM)

**Annexure – II**

**Techno – commercial format for enquiry E0630006 for supply of CTC Copper Conductors on finished basis through E-procurement.**

| SL. NO. | DESCRIPTION  | BIDDERS RESPONSE   |
|---------|--|--|
| 1       | Name of the supplier   |  |
| 2       | Name & designation of the contact person   |  |
| 3       | Address of the works at which inspection / delivery is offered.  |  |
| 4       | Complete acceptance to Technical Terms & conditions including Technical/ Purchase Specs as mentioned in Annexure. – I.   | <input type="checkbox"/> Accepted  |
| 5       | Complete acceptance to all terms & conditions of tender enquiry as mentioned in Annexure.-I  | <input type="checkbox"/> Accepted  |
| 6       | Acceptance for finalization of Price bid part-II through on line bidding (Reverse Auction).  | <input type="checkbox"/> Accepted  |
| 7       | *Acceptance for the final inspection of material after receipt at BHEL works and results shall be binding on the supplier.   | <input type="checkbox"/> Accepted  |
| 8       | Quoted delivery in number of days for contractual purposes on FOR destination basis from date of LOI.  | _____ Days   |
| 9       | Monthly committed capacity against this tender for BHEL on finished basis.   | _____ Kg   |
| 10      | Applicable GST (mention NA if not applicable)  |  |
|         | A. IGST@   | ..... %  |
|         | B. CGST @  | ..... %  |
|         | C. SGST @  | ..... %  |
| 11      | *Acceptance to Pricing Terms as per sl.no: 7 of Annexure – I.  | <input type="checkbox"/> Accepted  |
| 12      | *Acceptance to bid evaluation criterion at sl.no.5 of Annexure – I   | <input type="checkbox"/> Accepted  |
| 13      | Acceptance to <b><u>Delivery Terms on F.O.R destination basis as per clause 17 of Annexure-I</u></b>   | <input type="checkbox"/> Accepted  |
| 14      | Acceptance of penalty @ ½ % per week or part there of subject to max. of 10% for delay in supply beyond agreed delivery as per sl.no 21 of Annexure – I.   | <input type="checkbox"/> Accepted  |
| 15      | Acceptance to payment terms as per sl.no 16 of Annexure – I.<br><br>100% payment within 90 days of receipt (45 days for MSE registered suppliers as per relevant act n force), subject to acceptance of material at BHEL.  | <input type="checkbox"/> Accepted MSE's<br><input type="checkbox"/> Accepted 90day |
| 16      | *Acceptance to rejection replacement clause as per sl.no.14 of Annexure - I.   | <input type="checkbox"/> Accepted  |
| 17      | Validity of offer to be reckoned from the date of bid Part-I opening and it will be 120 days from the date of techno-commercial bid opening date (part-1) for finalization of the contract   | <input type="checkbox"/> Accepted  |
| 18      | *Acceptance to quantity distribution as per sl.no 10 of Annexure – I.  | <input type="checkbox"/> Accepted  |
| 19      | Un-Price bid (Annexure – IV) submitted with 'Q (Quoted)' OR 'NQ (Not Quoted)' status with bid part – I.  | <input type="checkbox"/> Yes   |
| 20      | Acceptance to short closure clause as per sl.no. 19 of Annexure – I.   | <input type="checkbox"/> Accepted  |
| 21      | *Integrity Pact submitted in original duly signed  | <input type="checkbox"/> Yes   |
| 22      | Acceptance to Warranty, Corresponding Repairs / Replacement of Goods, and Deductions as per clause 18 of Annexure-I.   | <input type="checkbox"/> Accepted  |
| 23      | 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. | <input type="checkbox"/> Accepted  |
| 24      | In case of any inconsistency between offers of supplier and the accepted terms and conditions in this sheet, the terms and conditions of this sheet shall prevail.   | <input type="checkbox"/> Accepted  |

\*In case of non-acceptance to these clauses, your bid may be liable for rejection.

Signature with name of the Authorized Signatory





ENQ:- B063000G.0000809-0018

1772525/2023/TP-TRM\_09

Neeraj Kumar

PI Estimate= Q

PQR for PI-121630461 / Enquiry  
Annexure - III



**Pre-Qualifying Requirement for Procurement of 'CTC' - PI:121630461/**

| Sl. No.       | REQUIREMENT  | Bidder's Response                           |   |                      |   |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |                                    |
|---------------|--|---|---|----------------------|---|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|------------------------------------|
| 6             | <p><b>Minimum Quantum-</b><br/>For qualifying in tender, bidder should have supplied CTC,<br/>(a) for non-MSEs<br/>(1) Minimum 8631 KG (Or)<br/>(2) Goods of worth Rs 50 Lakhs<br/>(b) for MSEs<br/>(1) Minimum 6042 KG (Or)<br/>(2) Goods of worth Rs 35 Lakhs</p> <p>Vendor to submit details of executed PO.</p> <table border="1"> <thead> <tr> <th>Customer Name</th> <th>Order No. &amp; Date</th> <th>Qty. supplied in UoM</th> <th>Tax Invoice / Completion Certificate &amp; Date</th> <th>Remark, if any</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>m</td> </tr> </tbody> </table> | Customer Name                               | Order No. & Date                            | Qty. supplied in UoM | Tax Invoice / Completion Certificate & Date | Remark, if any |  |  |  |  |  |  |  |  |  |  |  |  |  |  | m | <input type="checkbox"/> Submitted |
| Customer Name | Order No. & Date   | Qty. supplied in UoM                        | Tax Invoice / Completion Certificate & Date | Remark, if any       |   |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |                                    |
|               |  |   |   |                      |   |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |                                    |
|               |  |   |   |                      |   |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |                                    |
|               |  |   |   | m                    |   |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |                                    |
| 7             | <p>It is better / desired that New vendors who are not registered with BHEL, Jhansi should submit duly filled "Supplier Registration Form (SRF)" along with the requested documents. The SRF is available on line on our website www.bhel.com. However the same is not mandatory.</p>  | <input type="checkbox"/> Document Submitted |   |                      |   |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |                                    |

- We agree that our bid is liable to be rejected in case (a) the relevant information is not filled, (b) documentation is incomplete, (c) there are false declarations, and (d) if we do not meet the PQR.
- Criteria at Sl. No. 5 is desirable. Other are mandatory.
- Supporting documents for the details filled above have been submitted.

(Signature of the Supplier with Name, Designation & Seal)

*[Signature]*  
AGM(TRP)

AGM(CMM/TMM)

*[Signature]*  
AGM(Trfr-QC)

*[Signature]*  
07/11/23  
Prepared by (Indenter)

AGM(TRE FES)



**BHARAT HEAVY ELECTRICALS LIMITED JHANSI - 284120**  
(A Govt of India undertaking)  
**Material Management**

**Annexure-IV Rev-01**

**UNPRICE BID**

**UNPRICE BID FOR INDIGENOUS BIDDER, FOR ENQUIRY NO. E0630006**

|     |  |   |   |
|-----|--|---|---|
| 1   | Name & Address of the Supplier   |   |   |
| 2   | Sl No. as per Clause-6 of Annexure-I   | 1   | 2   |
| 3   | Items Qty, Kg  | 1510.00   | 84798.60  |
| 4   | Rate schedule : PO rate on F.O.R. destination basis shall consist A) <b>Copper Rate</b> and B) <b>Fabrication Rate</b> as below:   |   |   |
| A)  | <b>Copper Rate</b> shall be calculated as below  |   |   |
| i   | LME CSP Rate for Copper <del>925.50</del> <i>Now</i>   | 3rd LME working day from date of LOI.(excluding date of LOI)            |   |
| iii | Exchange rate (SBI TT Selling rate US\$ - INR)   |   |   |
| iii | Premium, USD/MT  | 190   | <b>FIXED (Applicable for all items)</b>   |
| iv  | *Multiplication factor   | 1.055*  | * As per prevailing notional customs duty, presently it is 1.055 (Applicable for all items) |
| v   | Copper rate Rs./Kg=  | {(LME CSP Rate + Premium) x Multiplication factor x Exchange rate}/1000 |   |
| B)  | <b>Fabrication rate</b> in Rs. / Kg basis: <b>Bidder to quote either quoted or Not quoted</b>  |   |   |
|     | As per Annexure-I clause -6, Sl no-01 consists of enquiry item no -02 and Sl no-02 consists of enquiry item no 3 to 5 & 7. Supplier has to quote fabrication rate in Rs/Kg in Price BOQ Excel format for Sl no- 01 & 02 only. That Fabrication rate shall be considered for their corresponding enquiry items. |   |   |
|     | Fabrication rates ( in figure)   | Quoted /<br>Not Quoted  | Quoted /<br>Not Quoted  |
|     | Fabrication rates (in words)   | Quoted /<br>Not Quoted  | Quoted /<br>Not Quoted  |
| C)  | PO Rate = Copper Rate + Fab.= A + B  |   |   |

(Signature of the Supplier with Name, Designation & Seal)

*Alum*  
*[Handwritten signature]*

INTEGRITY PACT

~~ANNEXURE-V~~  
ANNEXURE-V.

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 procurement of CTC copper against tender E0630006. (hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

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

**Section 1- Commitments of the Principal**

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

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

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

*Manu*  
*Alman*

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E0630006.

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BHEL-IP

AA:SSP:IP:R03 dtd 01-04-2022

- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

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

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

**Section 4 - Compensation for Damages**

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

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**Section 5 - Previous Transgression**

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

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

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

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

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

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

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.

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**Section 10 - Other Provisions**

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

Date 20/09/2023.

Witness:

(Name & Address)

(के. सरवणम)  
(K SARAVANAN)

उप महाप्रबन्धक (के.सा.प्र.)  
Dy. General Manager (CMM)  
बी.एच.एल., जहंसी  
B.H.E.L., JHANSI

For & On behalf of the Bidder/ Contractor

(Office Seal)

Witness:

(Name & Address)

Clause on IP in the tender**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.

| SI | IEM                                   | Email        |
|----|---------------------------------------|--------------|
| 1. | Shri Otem Dai, IAS (Retd.)            | iem1@bhel.in |
| 2. | Shri Bishwamitra Pandey, IRAS (Retd.) | iem2@bhel.in |
| 3. | Shri Mukesh Mittal, IRS (Retd.)       | iem3@bhel.in |

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

Note:

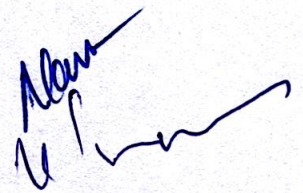
No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials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

## Details of contact person(s):

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| (1)                                  | (2)                                   |
| Name: <u>NAVEEN KUMAR MAHAJAN</u>    | Name: <u>K. SARAVANAN.</u>            |
| Deptt: <u>CRIM</u>                   | Deptt: <u>CRIM</u>                    |
| Address: <u>BHEL JHANSI</u>          | Address: <u>BHEL JHANSI</u>           |
| Phone: (Landline/ Mobile)            | Phone: (Landline/ Mobile)             |
| <u>0510-277001-2329 / 8765956505</u> | <u>0510-277001-2572 / 9972060513.</u> |
| Email: <u>NKmahajan@bhel.in</u>      | Email: <u>SaravananK@bhel.in</u>      |
| Fax: _____                           | Fax: _____                            |

**Revised Tentative quantity distribution against tender E0630006**

| Enquiry Item no       | Material Code | Sizes                | Total Tendered quantity |         | Qty/RL | L2 Allocation |           | L1 Allocation |           |
|-----------------------|---------------|----------------------|-------------------------|---------|--------|---------------|-----------|---------------|-----------|
|                       |               |                      | in RL                   | in Kg   |        | Qty in RL     | Qty in Kg | Qty in RL     | Qty in Kg |
| 3                     | JS9006275300  | 19//1.8X3.6X130      | 55                      | 7590    | 138    | 26            | 3588      | 29            | 4002      |
| 4                     | JS9006275280  | 21//1.7X3.4 X 295    | 180                     | 55596.6 | 308.87 | 48            | 14825.76  | 132           | 40770.84  |
| 5                     | JS9006277860  | 21//1.7X3.4 X 234    | 60                      | 14700   | 245    | 20            | 4900      | 40            | 9800      |
| 7                     | JS9006282070  | 25//1.55 X 3.35 X 91 | 64                      | 6912    | 108    | 20            | 2160      | 44            | 4752      |
| Total Quantity        |               |                      | 359                     | 84798.6 |        | 114           | 25473.76  | 245           | 59324.84  |
| <b>% Distribution</b> |               |                      |                         |         |        | <b>30.04%</b> |           | <b>69.96%</b> |           |

*Alan*  


ANNEXURE TO PI NO.: - \_\_\_\_\_

ES NO. - 625668

DATE – 23.03.2022

COPPER DATA REV- 01



**COPPER DATA FOR CONTINUOUSLY TRANSPOSED COPPER CONDUCTOR (CTC)**

**FOR 02 NOS. 6531 KVA 3-PHASE DRIVE FREIGHT LOCO TRANSFORMER**

**FOR INDIAN RAILWAYS (FOR TR, FL, BUR COILS ONLY)**

| Sl. No. | Bare Copper Size (mm) | Rad. Nomex Insulation (mm) | Enamel Grade | Max/ Min Covered size (mm) |               | No. Of Reels | Length per Reel (Mtr.) | Weight (KG) |         | Weight Per Reel (Kg) | Remark      |
|---------|-----------------------|----------------------------|--------------|----------------------------|---------------|--------------|------------------------|-------------|---------|----------------------|-------------|
|         |                       |                            |              |                            |               |              |                        | Bare        | Covered |                      |             |
| 1.      | 21//1.7 X 3.4         | 0.30                       | M            | 21.81/<br>20.14            | 8.32/<br>7.58 | 8            | 295                    | 2388        | 2471    | 308.87               | For TR & FL |
| 2.      | 13//1.8 X 4.0         | 0.30                       | M            | 14.83/<br>13.72            | 9.52/<br>8.78 | 1            | 186                    | 147         | 151     | 151                  | For BUR     |

**TOTAL: 2622 Kg**

**NOTE TO SUPPLIERS:**

1. Conductor must confirm to CPS-AA28129/ Rev-04 and nominal value of 0.1% Proof stress shall be 135 MPa with  $\pm 10\%$  tolerance. The insulation shall be Polyesterimide enamel covering to CPS-AA28144/ Rev-03 and Aramid (Nomex) paper to CPS-AA22901/ Rev-05 in place of Kraft paper.
2. Minimum winding diameter is 330 mm.
3. Length of reel is very important and in no case it should be less than the specified.
4. Length of conductor and weight must be marked clearly on each drum.
5. Source Test certificate of Nomex paper to be supplied along with the supply.
6. Rev-01 issued to make the copper data for 02 sets.

Prepared by:

Checked by:

(नीरज वार्ष्णेय)  
(NEERAJ VARSHNEY)  
श्री डी.जी.एम. (डिजाइन) ट्रांसफार्मर इंजीनियरिंग  
Sr. D.G.M. (Design) Transformer Engineering  
बी.एच.ई.एल., जहानपुर  
B.H.E.L., JHANSI



**COPPER DATA FOR CONTINUOUSLY TRANSPOSED COPPER CONDUCTOR (CTC)**

**FOR 7775 KVA 3-PHASE DRIVE FREIGHT LOCO TRANSFORMER**

**FOR INDIAN RAILWAYS (FOR TR, FL, BUR, HL1, HL2 COILS ONLY).**

| Sl. No | Bare Copper Size (mm) | Rad. Nomex Insul. (mm) | Enamel Grade | Max/ Min Covered size (mm) |               | No. Of Reels | Length per Reel (Mtr.) | Weight (KG) |         | Weight Per Reel (Kg) | Remark             |
|--------|-----------------------|------------------------|--------------|----------------------------|---------------|--------------|------------------------|-------------|---------|----------------------|--------------------|
|        |                       |                        |              |                            |               |              |                        | Bare        | Covered |                      |                    |
| 1      | 21//1.7 X 3.4         | 0.30                   | M            | 21.81/<br>20.14            | 8.32/<br>7.58 | 4            | 234                    | 947         | 980     | 245                  | For TR1-4 [01 SET] |
| 2      | 25//1.7 X 3.4         | 0.30                   | M            | 25.67/<br>23.70            | 8.32/<br>7.58 | 2            | 56                     | 135         | 140     | 70                   | For FL [01 SET]    |
| 3      | 13//1.8 X 4.0         | 0.30                   | M            | 14.83/<br>13.72            | 9.52/<br>8.78 | 1            | 186                    | 147         | 151     | 151                  | For BUR [02 SETS]. |
| 4      | 25//1.55 X 3.35       | 0.25                   | M            | 23.62/<br>21.64            | 8.12/<br>7.37 | 2            | 91                     | 202         | 216     | 108                  | For HL1-2 [01 SET] |

**NOTE TO SUPPLIERS:**

1. Conductor must confirm to CPS-AA28129/ Rev-04 and nominal value of 0.1% Proof stress shall be 135 Mpa with  $\pm 10\%$  tolerance. The insulation shall be enamel covering to CPS-AA28144/ Rev-03 and Aramid (Nomex) paper to CPS-AA22901/ Rev-05 in place of Kraft paper.
2. Source Test certificate of Nomex paper to be supplied along with the supply.
3. Length of reel is very important and in no case it should be less than the specified.
4. Length of conductor and weight must be marked clearly on each drum.

Prepared by:

*(Handwritten signature)*

\* Checked by:

*(Handwritten signature)*  
22/7

(NEERAJ VARSHNEY,  
G.M. (Design) Transformer Engineer  
20/08/2020, 20/08/2020, 20/08/2020

ANNEXURE TO PI NO.:- \_\_\_\_\_  
REV:- 00

DATE:-October 26, 2019  
ES NO.:- 625669

**COPPER DATA FOR CONTINUOUSLY TRANSPOSED COPPER CONDUCTOR (CTC)**

**FOR 01 NO. 6531/7775 KVA 3-PHASE DRIVE FREIGHT LOCO TRANSFORMER**


**FOR INDIAN RAILWAYS (FOR SOD COILS ONLY).**

| Sl. No. | Bare Copper Size (mm) | Rad. Nomex Insulation (mm) | Enamel Grade | Max/ Min Covered size (mm) |               | No. Of Reels | Length per Reel (Mtr.) | Weight (KG) |         | Weight Per Reel (Kg) |
|---------|-----------------------|----------------------------|--------------|----------------------------|---------------|--------------|------------------------|-------------|---------|----------------------|
|         |                       |                            |              |                            |               |              |                        | Bare        | Covered |                      |
| 1.      | 19//1.8 X 3.6         | 0.30                       | M            | 20.89/<br>19.36            | 8.72/<br>7.98 | 1            | 130                    | 134         | 138     | 138                  |

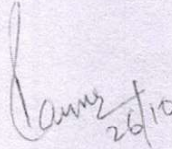
**NOTE TO SUPPLIERS:**

1. Conductor must confirm to CPS-AA28129/ Rev-04 and nominal value of 0.1% Proof stress shall be 135 Mpa with  $\pm 10\%$  tolerance. The insulation shall be enamel covering to CPS-AA28144/ Rev-03 and Aramid (Nomex) paper to CPS-AA22901/ Rev-05 in place of Kraft paper.
2. Source Test certificate of Nomex paper to be supplied along with the supply.
3. Length of reel is very important and in no case it should be less than the specified.
4. Length of conductor and weight must be marked clearly on each drum.

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**POLYAMIDE (ARAMID) CALENDER PAPER****1.0 GENERAL:**

This specification governs with the quality requirements calender polyamide (Aramid) paper made from specially formulated polyamide fibres with a high degree of thermal stability. The material is used upto a maximum operating temperature of 220°C.

**2.0 APPLICATION:**

Used as inter-turn insulation, slot liner of electrical machines.

**3.0 COMPLIANCE WITH NATIONAL STANDARDS:**

There is no national standard covering this type of material.

**4.0 DIMENSIONS AND TOLERANCES:****4.1 Sizes:**

Thickness, width and length of the sheet / tape shall be as specified in BHEL order.

**4.1.1 Preferred thickness and Tolerances:**

0.05, 0.08, 0.13, 0.18, 0.2, 0.25, 0.3, 0.4, 0.5 and 0.8 mm with tolerances as per Annexure I.

**4.1.2 Preferred Width and Tolerances:**

**Sheet:** 600mm and 900mm with tolerance of  $\pm 15$  mm.

**Tape:** 20, 25 and 30 mm with tolerance of  $\pm 0.5$  mm.

**5.0 FINISH:**

The material shall be free from surface or edge defects, inclusions, voids, pin-holes and cracks which may affect its suitability for use. Visual properties shall be consistent from lot to lot.

**6.0 TEST SAMPLES:**

A roll of at least 50 metres length for tape or 2 m<sup>2</sup> sample from inner portion of sheet roll of ordered thickness from the same batch shall be supplied for testing and approval.

**7.0 PROPERTIES:**

When tested in accordance with the relevant clauses of the test methods mentioned against each, the test samples shall show the following values.

Revisions : As per 38<sup>th</sup> MOM of MRC-E

**APPROVED :**  
INTERPLANT MATERIAL  
RATIONALISATION COMMITTEE-MRC (E)

Rev. No. 05

Amd.No.

Reaffirmed

Prepared

Issued

Dt. of 1st Issue

Dt.:20.04.2012

Dt :

Year :

BHOPAL

Corp. R&D

AUGUST, 1983

**7.1 Physical properties:****7.1.1 Moisture absorption:** 8%, maximum

A sample of 75 ± 1 mm x 75 ± 1mm is kept at 90% RH and room temperature (27<sup>0</sup> ± 2<sup>0</sup>C) for 72 hours.

**8.0 TYPE TESTS:****8.1 Mechanical properties**

:

**Breaking strength** : As per Annexure I

**Elongation at break** : As per Annexure I

**8.2 Electrical Properties:**

**Electrical strength (BDV) in air at 27 ± 2<sup>0</sup> C** : As per Annexure I

**Volume Resistivity (ASTM D –257)** : 1 x 10<sup>16</sup> ohm-cm, minimum.

**9.0 ACCEPTANCE CRITERIA:**

Material shall be accepted on the basis of the following:

- a) Compliance certificate furnished by the supplier
- b) Test certificate furnished by the supplier and / or testing carried out at BHEL end.

**10.0 TEST CERTIFICATES:**

Unless otherwise stated, three copies of test certificates shall be supplied along with each consignment giving following information:

In addition, the supplier shall ensure to send one copy of test certificate along with the dispatch documents to facilitate quick clearance of the materials.

AA 229 01, Rev 05: Polyamide (Aramid) calender paper.

BHEL order No.

Manufacturers/suppliers Name:

Trade name/mark, if any:

Batch/Lot No.

Quantity supplied

Test results of clauses 4.0, 7.0 and 8.0

**11.0 PACKING AND MARKING:**

Rolls shall be suitably packed to prevent damage during transit and storage.

Each consignment shall be legibly marked or labeled with the following information:

AA 229 01: Polyamide (Aramid) calender paper

BHEL order No.

Manufacturers/suppliers Name:

Batch/Lot No.

Trade mark, if any

Sizes and Quantity supplied

**12.0 REFERRED STANDARDS (Latest Publications Including Amendments):**

- 1) ASTM D 257



**CORPORATE PURCHASING SPECIFICATION**

AA 229 01


Rev. No. 05

PAGE 3 OF 3

**ANNEXURE I - CLAUSE 8.0**

| Nominal Thickness, mm | Tolerance ± mm | Substance g/m <sup>2</sup> Tolerance of ±10% | Breaking strength , N/cm width, minimum |                              | Elongation, percent, minimum |                              | Tear strength, N, minimum |                              | Dissipation factor, maximum | Electric strength (BDV) in air at 27±2°C kV/mm, min. |
|-----------------------|----------------|--|---|------------------------------|------------------------------|------------------------------|---------------------------|------------------------------|-----------------------------|--|
|                       |                |  | Machine direction (MD)                  | Cross machine direction (XD) | Machine direction (MD)       | Cross machine direction (XD) | Machine direction (MD)    | Cross machine direction (XD) |                             |  |
| 0.05                  | 0.01           | 40   | 44                                      | 19                           | 11                           | 8                            | 0.7                       | 1.6                          | 0.004                       | 19   |
| 0.08                  | 0.01           | 63   | 70                                      | 35                           | 11                           | 9                            | 1.2                       | 2.3                          | 0.005                       | 24   |
| 0.13                  | 0.02           | 120  | 140                                     | 68                           | 16                           | 13                           | 2.4                       | 5.1                          | 0.006                       | 27   |
| 0.18<br>0.2           | 0.02           | 170  | 230                                     | 120                          | 19                           | 15                           | 3.6                       | 7.1                          | 0.006                       | 35   |
| 0.25                  | 0.03           | 250  | 320                                     | 160                          | 20                           | 16                           | 5.2                       | 9.8                          | 0.006                       | 33   |
| 0.3                   | 0.03           | 310  | 390                                     | 210                          | 23                           | 19                           | 6.5                       | 12                           | 0.007                       | 34   |
| 0.4                   | 0.05           | 410  | 490                                     | 260                          | 21                           | 17                           | 8.1                       | 15                           | 0.007                       | 33   |
| 0.5                   | 0.06           | 540  | 670                                     | 390                          | 22                           | 17                           | 12                        | 19                           | 0.007                       | 33   |
| 0.8                   | 0.10           | 850  | 910                                     | 610                          | 20                           | 16                           | --                        | --                           | 0.007                       | 28   |

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|   |   |             |
|---|---|-------------|
|  | <b>CORPORATE PURCHASING SPECIFICATION</b> | AA 28129    |
|   |   | REV NO . 04 |
|   |   | PAGE 1 OF 9 |

**PAPER COVERED CONTINUOUSLY TRANSPOSED COPPER CABLE  
( 0.1% PROOF STRESS )**

**1. GENERAL :**

This specification governs the quality requirements of paper covered continuously transposed copper conductor (CTC) incorporating a number of individual work hardened copper strips insulated with a polyvinyl – acetal based enamel of fine grade and covered over all with not less than three layers of paper and suitable for use in hot insulated oil. Paper shall conform to BHEL corporate purchase specification (CPS) No. AA 21111 or AA 21116. The material in insulating oil have temperature index of 105 .

**2. APPLICATION :**

Used for windings of Transformers .

**3. COMPLIANCE WITH NATIONAL STANDARDS**

There is no National Standard for this type of material . However assistance has been derived from the following standards . ↑

|   |   |   |
|---|---|---|
| IS : 13370 Pt. 17, 1996/<br>IEC : 60317-17,1970 | - Specification for particular type of winding wires -<br>Pt. 17 - Polyvinyl Acetal enameled Rectangular .<br>Copper Wires. Class 105 | ↑ |
|---|---|---|

|  |  |   |
|--|--|---|
| IS : 13730 Pt.27 – 1996 /<br>IEC : 60317 - 27 – 1990 | - Specification for particular Type of winding wires<br>Pt. 27 - Paper covered Rectangular Copper Wire . | ↑ |
|--|--|---|

**4. TEST SAMPLES :**

**4.1 Paper :**

The supplier shall send the test certificate for papers for all the tests as per BHEL Corporate Purchase Specification (CPS) No. AA 21111 or AA 21116 for our approval. The test report shall be sent for each lot of paper and of different thicknesses received from the paper mill , which are to be used in the manufacture of BHEL paper covered continuously transposed copper cable .

In the absence of proper test certificate 20 sheets of size 300X300 mm of paper from each lot and of different thicknesses shall be supplied for out testing.

|  |                |                   |   |                                 |                                       |
|--|----------------|-------------------|---|---------------------------------|---------------------------------------|
| <b>Revision :</b><br>CI.34 .1.19 of MOM of MRC ( E ) |                |                   | <b>APPROVED :</b><br><b>INTER PLANT MATERIAL<br/>RATIONALISATION COMMITTEE- MRC ( E )</b> |                                 |                                       |
| <b>Rev.No. 04</b>                                    | <b>Amd.No.</b> | <b>Reaffirmed</b> | <b>Prepared<br/>BHOPAL</b>  | <b>Issued<br/>Corp. R&amp;D</b> | <b>Dt.of Ist Issue<br/>Aug . 1987</b> |
| <b>Dt :19.05.07</b>                                  | <b>Dt:</b>     | <b>Year:</b>      |   |                                 |                                       |



## CORPORATE PURCHASING SPECIFICATION

AA 28129

REV NO. 04

PAGE 2 OF 9

### 4.2 Finished Conductor

3 metre long sample of CTC shall be supplied for testing and inspection.

### 5. CONDUCTOR:

5.1 CTC of any size given in Transformer standard sheets shall be ordered. Maximum and minimum dimensions of bare cable shall be as per these individual orders. Conductor size, No. of parallels and radial paper covering shall be stated on the order.

5.2 Radial insulation shall be from 0.20 to 3.0 mm, both inclusive.

5.3 Bunched CTC consisting of 2 or more individual stacks of any size indicated in Transformer Standard sheets shall also be ordered whenever required.

### 6. LENGTH & WEIGHT OF CABLE:

6.1 The total weight of cable, the length of cable per drum and the total No. of drums shall be as stated on the order. Length of cable per drum specified in our order is very important and so, it shall neither be less nor more than the specified.

6.2 Weights indicated in our orders are nominal and can vary within  $\pm 2$  percent considering allowed tolerances on dimensions and on corner radius.

Excess weights more than 2 percent shall not be admissible under any circumstances.

### 7. TYPE OF ENAMEL COVERING:

Fine grade. However in exceptional cases when medium grade of covering is required, it shall be stated on the order.

### 8. CONDUCTOR:

#### 8.1 Grade of Material:

The conductor shall be manufactured from ETP grade copper conforming to BHEL Corporate Purchasing Specification (CPS) AA 12024.

Note : Manufacture of the Copper conductors from continuous cast copper bars is preferable provided all other acceptance parameters and conditions remains same.

The conductor shall fully conform to IS : 13730 Pt. 27 - 1996 except 0.1% proof stress and resistance. The 0.1 % Proof Stress of the conductor after removal of paper when tested as per IS:1608 shall be as given below :

| <u>Nominal Value</u> | <u>Tolerance</u> |
|----------------------|------------------|
| 115, 135 & 145 Mpa . | +15% , - 10%     |



## CORPORATE PURCHASING SPECIFICATION

AA 281 29

REV NO.

PAGE 3 OF 9

Tests shall be carried out on one sample taking 50 mm gauge length .However the conductor with any other nominal value of 0.1% proof stress can also be ordered .

### 8.2 ELECTRICAL RESISTIVITY:

The resistivity at 20 °C, when measured directly on the sample in "as received" condition shall not be greater than 0.01777 ohm/mm<sup>2</sup>/m. Refer Appendix "B of IS : 613 for temperature correction factor.

### 8.3 Enameled conductor :

The enameled conductor shall comply with fine grade of covering to IS :13730 Pt. 17, Î with the exceptions as given below :

### 8.4 Joints :

#### 8.4.1 Joints in Bare Conductor :

Joints shall not be made in the conductor after it is drawn . Any joint made during the drawing process shall be resistance welded .

#### 8.4.2 Joint in Enameled conductor : Î

If a joint in the enameled conductor becomes unavoidable due to breakage accidental stoppage of machine or when the specified length is in excess of the capacity of transposing machine bobbins, it shall be made by resistance welding , care being taken to ensure that the joint is made sound . All surplus weld shall be removed by filing and the joint finished with emery cloth / paper to give a smooth clean surface after Î which it shall be patch enameled . Any joint shall be insulated from the adjacent strips by a single piece of 100 micron thick paper half overlapped . Joints in the individual strips shall be staggered so that the distance between individual joints along the cable shall not be less than 150 mm. A red tag shall be tied at the joint portion of cable for identification and inspection . Any such joint shall be made only after prior approval of BHEL .

### 9. PAPER:

#### 9.1 Grade of Paper:

Kraft paper shall conform to BHEL Corporate Purchasing specification (CPS) No. AA 21111 or AA 21116. If kraft / manila mixture or any other paper is used, it shall conform to BHEL Corporate Purchasing Specification (CPS) No. AA 21111 or AA 21116.

#### 9.2 Thickness:

The thickness of paper shall be within limits of 50 and 140 um both inclusive.



10. CONSTRUCTION OF TRANSPOSED CABLE:

10.1 Cleanliness of Enameled Conductor:

The enameled conductor shall be free from copper dust and other extraneous matter prior to transposing and covering with paper.

10.2 Transposition of Enameled Conductor:

The cable shall be manufactured from any odd number of enameled conductors from a minimum of 5 to a maximum of 31, according to the size of the individual conductor and the overall size of the cable as specified in the order.

The cable shall be formed by placing the strips into two stacks, the stacks, being edge to edge and the whole group of strips being continuously transposed along the length of the cable.

The pitch of successive transpositions shall be approximately 15 times the width of bare strip subject to a minimum of 50 mm. Lay i.e. the distance over which a strip resumes its original position in the conductor shall be equal to pitch multiplied by the number of strips.

For cables of radial depth 10 mm and above it shall have an intercolumn paper (paper spacer) inserted between the vertical stacks of strip. This paper shall comply with clause 9 and thickness shall be 100 um. Width of the paper spacers shall not be less than the value calculated from the following formula.

$$\text{Width} = \frac{(\text{Number of strips} - 1)}{2} \times \text{thickness of enameled strip}$$

10.3 Application of Paper Covering:

10.3.1 General:

Each layer of paper shall be continuous, firmly applied and substantially free from creases. No bonding or adhesive material shall be used except to anchor the ends of paper. Any such bonding or adhesive material shall have no deleterious effect on transformer oil, insulating paper, or electric strength of the covering. When papers of different thickness are used, the outermost paper shall be the thickest. The thickness of the paper shall be progressively increased from the innermost to the outermost layer.

10.3.2 Width of paper:

The width of paper shall be within the limits of 15 and 40 mm, both inclusive.

10.3.3 Arrangement of layers:

All the layers shall be applied in the same direction, all except the two outermost layers shall be butt wound and the two outermost layers shall be applied together with a staggering of 50% so that they are interlocked giving 50% overlap effect. Within each group the positions of the butt joints of any layer relative to the layer below shall be progressively displaced by approximately 30 percent of the paper width.



#### 10.3.4 PAPER THICKNESS FOR BUTT AND OVERLAP INTERLOCKED WOUND LAYERS:

Thickness of paper for butt wound layers shall be between 50  $\mu\text{m}$  and 100  $\mu\text{m}$  (both inclusive) Two outermost overlap interlocked layers shall be wound with paper of thickness between 75 and 125 microns (both inclusive). However, when radial insulation is 2.2 mm or more, 140  $\mu\text{m}$  paper for two outermost layers is allowed to avoid two paper covering operations due to availability of a maximum of 24 paper heads in the lapping machine of same manufactures. Special extensible high density and high mechanical strength paper meeting the requirements of clause 9 can be used in the two outermost interlocked layers.

#### 11. DIMENSIONS OF TRANPOSED CABLES :

##### 11.1 Method of Calculating Maximum Bare Axial Width (AW) :

$$AW = 2(b + e) + F + \text{inter column paper if specified (100 } \mu\text{m thick)}$$

Where

$$AW = \text{Max. bare axial width of transposed cable.}$$

$$b = \text{Maximum axial width of bare individual conductor} \\ = \text{Nominal width} + \text{Tolerance (from table 1 below)}$$

$$e = \text{Maximum increase in dimension due to enameling} \\ (\text{as per IS : 13730 Pt. 0 /Sec. 2 : 1993 (R-2003), IEC 60317-0-2:2005}) \\ = 0.11 \text{ mm for fine grades of covering}$$

$$F = \text{Free space allowance} = 0.4 \text{ mm}$$

Table 1 - Tolerances on Nominal Dimensions - (IS :13730 Pt. 27 : 1996)

| Dimension (Width or Thickness), mm |                     | Tolerances $\pm$ mm |
|------------------------------------|---------------------|---------------------|
| Over                               | Up to and including |                     |
| -                                  | 3.15                | 0.030               |
| 3.15                               | 6.30                | 0.050               |
| 6.30                               | 12.50               | 0.070               |
| 12.50                              | 16.00               | 0.100               |

##### 11.2 Method of calculating Maximum Bare Radial Depth (RD)

$$RD = \frac{N+1}{2} (T + e) + \text{free space allowance (from Table 2)}$$

Where

$$RD = \text{Maximum bare radial depth of Transposed Cable.}$$

$$T = \text{Maximum thickness of bare individual conductor} \\ = \text{Nominal thickness} + \text{Tolerance (from table 1 in cl.11.1)}$$

$$N = \text{Number of conductors in parallel}$$

$$e = \text{Maximum increase in dimensions due to enameling} \\ (\text{as per IS : 13730 Pt. 0/Sec 2 : 1993 (R 2003), IEC 60317-0-2 : 2005}) \\ = 0.11 \text{ mm for fine grade of covering.}$$



TABLE 2 - FREE SPACE ALLOWANCE - RADIAL DEPTH (mm)

| No. of conductors | Free space allowance radial depth, mm |                          |
|-------------------|---------------------------------------|--------------------------|
|                   | Thickness 1 -- 2 mm                   | Thickness 2.1 -- 3.15 mm |
| 5 -11             | 0.28                                  | 0.63                     |
| 13                | 0.30                                  | 0.70                     |
| 15                | 0.33                                  | 0.78                     |
| 17                | 0.36                                  | 0.85                     |
| 19                | 0.39                                  | 0.90                     |
| 21                | 0.42                                  | 1.00                     |
| 23                | 0.44                                  | 1.05                     |
| 25                | 0.50                                  | 1.15                     |
| 27                | 0.55                                  | 1.25                     |
| 29                | 0.60                                  | 1.40                     |
| 31                | 0.65                                  | 1.50.                    |

## 11.3 Method of Calculating Maximum Axial Width &amp; Radial Depth with Paper Covering:

$$\text{Maximum covered Axial Width} = AW + t$$
$$\text{Maximum covered Radial Depth} = RD + t$$

Where AW is taken from Clause 11.1

RD is taken from Clause 11.2

t = nominal increase in dimensions due to paper covering taken from Cl. 11.4.

## 11.4 Increase in Dimensions due to paper covering:

## 11.4.1 Increase in Dimensions:

The increase in dimensions due to covering shall have tolerance indicated below:

| Increase due to covering (mm) |                   | Tolerance % |
|-------------------------------|-------------------|-------------|
| Over                          | Up to & including |             |
| -                             | 0.5               | +0 - 10     |
| 0.5                           | 1.3               | +0 - 7.5    |
| 1.3                           | -                 | +0 - 5      |

## 11.4.2 Measuring Equipment :

The measurement shall be made with a suitable ratchet micrometer . The spindle and anvil of the micrometer shall have a diameter of 5 to 8 mm .

**11.4.3 Measuring Method:**

Covered Dimension shall be measured at three positions not less than 100 mm apart.. The measurements shall be made on completely straight parts of the transposed cable. The measurement shall include at least one over lap. The covering shall be removed by any method which does not damage the conductor for three positions used for the measurement of "Covered Dimensions" and "Bare Dimensions" measured at these positions. The average of the three results shall be reported as "bare dimension". The difference between "Covered Dimension" and the "Bare Dimension" shall be reported as the increase in dimension due to covering.

**11.4.4 Counter Check:**

The increase in dimension due to covering shall also be counter checked by adding up the thickness of paper used in each layer. The thickness of paper shall be measured by dead weight micrometer conforming to IS: 1060 (Part 1) by stacking the tapes of paper one above the other. Paper tape shall not be folded to form two or more tapes. Length of paper tapes shall not be less than 150 mm. Five measurements shall be made distributed over the stack. The paper thickness shall be computed by dividing by five the mean of five readings.

Radial insulation so computed in 11.4.4 shall not be less than the minimum allowed (considering the appropriate tolerance) as per 11.4.1.

**12. TESTS ON FINISHED CABLES:****12.1 Insulation Faults Between Strips :**

The insulation test at 250 V, AC for 1 minute shall be conducted on all drums between each and every other strip in CTC stack. There shall be no fault in the insulation. In case of bunched (twin) CTC, this test shall also be conducted between two stack.

**13. TEST CERTIFICATE:**

Unless otherwise stated three copies of the test certificate shall be supplied along with each consignment,

In additional the supplier shall ensure to enclose one copy of test certificate along with their dispatch documents to ensure quick clearance of the material.

The test certificate shall bear the following information

AA 28129 : Paper covered continuously Transposed Copper Cable. (0.1% Proof Stress) (Rev. 04) Covered & Bare Dimension of cable, No. and size of individual conductor, increase in dimensions due to paper covering, number of paper layers and thickness of paper in each layer, grade of enamel and length of cable shall be indicated in the test certificate.

BHEL Order No.

Manufacturer's / Supplier's name

Trade mark, if any

Batch No./Lot No

Test results of enameled and covered transposed cable as per Cl. 5, 8 to 12.



Test certificates for compliance of characteristics of paper to BHEL Corporate Purchasing Specifications (CPS) No. AA 21111 and AA 21116.

14. PACKING AND MARKING:

The transposed cable shall be tightly and evenly wound, without twist, on drums in such a direction that when unrolled the exposed edge of the overlap of the outer layer of paper is towards the drum. The size of drum shall be selected from Annexure I. Drum flanges shall have an arrow mark showing the position of finishing end of cable.

Barrel dia 'C' of drum shall be at least 50 times of covered radial depth of cable subject to a maximum of 900 mm (Barrel 14) When specified on order, drums of barrel dia 1070 & 1140 mm shall be used. Out side flange dia A of drums can be reduced by the supplier considering the packing weight of CTC and capacity of the drum. However, it shall be ensured that cable is not packed up to the rim of the drum.

Before winding the insulated strip, a layer of polythene sheet or similar waterproof material shall be wrapped on empty drum. After winding the cable, the sheet edges shall be folded over the cable and then a polythene strip shall be wound on outside.

As a final protection, a layer of oiled canvas or similar waterproof material shall be wrapped over the polythene sheet, ensuring that no part of the cable is exposed.

Drums used for packing shall be made from seasoned wood. Circular disc separator shall be made from plywood.

Metal/Non –Metal straps used over, the drum shall be stamped/sealed with the manufacturer's identification marks. Similarly, end of the conductor shall also be stamped/sealed.

Each drum shall be labeled clearly stating the following information. The label shall preferably be cemented into a recess in the side of the flange of the drum.

AA 28129 - Paper Covered continuously Transposed Copper Cable. (0.1% Proof Stress)

BHEL Order No.  
Manufacturer's Name / Suppliers Name

Maximum covered and bare dimension of cable, No. and size of individual conductor, increase in dimensions due to paper covering, No. of paper layers and thickness of paper in each layer, grade of enamel and length of cable.

Batch No./Lot No..  
Net weight / Gross weight.

15. REFERRED STANDARDS (Latest Publication Including Amendments) :

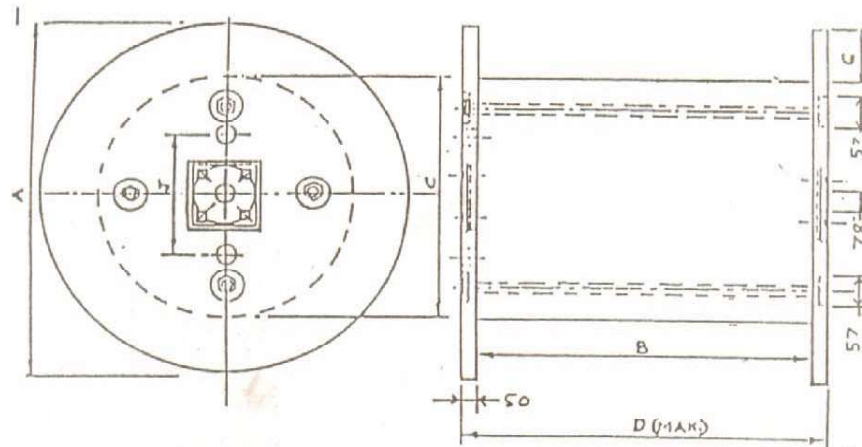
↑

- |                   |                 |                   |                |
|-------------------|-----------------|-------------------|----------------|
| 1. AA 21111       | 2. AA 21116     | 3. AA 12024       | 4. IS:13730-17 |
| 5. IS:613         | 6. IEC 60317-17 | 8. IEC : 60317-27 | 9. IS:1060     |
| 10 IS:13730 Pt.27 | 11 IS:1608      |                   |                |

**ANNEXURE - I**

**Dimensions of Standard Drum**

| DIMENSION                   |   | Drum Designation |     |      |      |      |      |      |
|-----------------------------|---|------------------|-----|------|------|------|------|------|
|                             |   | 8                | 9   | 10   | 14A  | 14B  | 14C  | 14D  |
| Outside Flange diameter     | A | 800              | 900 | 1000 | 1400 | 1400 | 1400 | 1400 |
| Barrel dia                  | C | 600              | 600 | 700  | 900  | 900  | 900  | 900  |
| Overall width               | D | 440              | 440 | 660  | 440  | 710  | 910  | 580  |
| Traverse                    | B | 340              | 340 | 560  | 340  | 610  | 810  | 480  |
| PCD of Driving Holes        | J | 300              | 300 | 600  | 600  | 600  | 600  | 600  |
| Flange depth                | G | 88               | 138 | 138  | 238  | 238  | 238  | 238  |
| Approximate Capacity in Kg. |   | 300              | 480 | 890  | 1230 | 2200 | 2900 | 1730 |




- NOTE:**
- Partitions to hold multiple length in a drum shall be of 12.5 mm thick.
  - Any fixing bolt used within a circle of 600 mm diameter shall not project outside flange surface.

**Note:**

- Partitions to hold multiple length in a drum shall be of 12.5 mm thick.
- Any fixing bolt used within a circle of 600 mm diameter shall not project outside flange surface.

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|---|---|---|------------------------------------|
|    | <b>CORPORATE PURCHASING SPECIFICATION</b> |   | AA 28144                           |
|   |   |   | REV NO. 03                         |
|   |   |   | PAGE 1 OF 6                        |
| <b><u>POLYESTERIMIDE ENAMELLED RECTANGULAR COPPER CONDUCTORS</u></b><br><b><u>(TEMPERATURE INDEX 155)</u></b>   |   |   |                                    |
| <p>1. <b><u>GENERAL:</u></b></p> <p style="padding-left: 40px;">This specification governs the quality requirements of rectangular copper conductors, insulated with flexible enamel based on polyesterimide base fine and medium covering with a temperature index of at least 155.</p>  |   |   |                                    |
| <p>2. <b><u>APPLICATION:</u></b></p> <p style="padding-left: 40px;">Used in the windings of Rotating Electrical Machines. <span style="float: right;">↑</span></p>  |   |   |                                    |
| <p>3. <b><u>COMPLIANCE WITH NATIONAL STANDARDS:</u></b></p> <p style="padding-left: 40px;">This specification conforms to the following Standards and shall also meet the alternate / additional requirements of this specification. <span style="float: right;">↑</span></p> <p style="padding-left: 40px;">IS:13730 Pt 16 1996 : Specification for particular types of winding wire- Polyester enameled rectangular copper wires clause 155. <span style="float: right;">↑</span></p> <p style="padding-left: 40px;">IEC : 60317- 0-2 : Specification for particular types of winding wire Pt. 0 - General Requirements - Section 2 Enamelled Rectangular Copper Wire. <span style="float: right;">↑</span></p> |   |   |                                    |
| <p>4. <b><u>SIZES :</u></b></p> <p style="padding-left: 40px;">The conductor shall be supplied to the sizes specified in our order.<br/>The sizes shall be preferably selected from Cl. 4 of IS : 13730 Pt . 16 <span style="float: right;">↑</span></p>  |   |   |                                    |
| <p>5. <b><u>JOINTS :</u></b></p> <p style="padding-left: 40px;">No joint shall be made in the copper conductor after it is drawn.<br/>Any joint made during the drawing process shall be resistance welded only.</p>  |   |   |                                    |
| <b>Revision :</b><br>Cl.34.1.19 of MOM of MRC- E  |   | <b>APPROVED :</b><br>INTER PLANT MATERIAL<br>RATIONALISATION COMMITTEE- MRC (E) |                                    |
| <b>Rev.No. 03</b><br>Dt: 23.05.2007   | <b>Amd.No.</b><br>Dt:                     | <b>Reaffirmed</b><br>Year:  | <b>Prepared</b><br>BHOPAL          |
|   |   | <b>Issued</b><br>Corp. R&D  | <b>Dt.of Ist Issue</b><br>Dec.1977 |



## CORPORATE PURCHASING SPECIFICATION

AA 28144

REV NO. 03

PAGE 2 OF 6

### 6. CONDUCTOR :

#### 6.1 Conductor Material :

The conductor shall be manufactured from ETP grade copper , conforming to IS : 191 Part 5 , and shall be of high conductivity, annealed copper .

#### 6.2 TOLERANCES ON NOMINAL DIMENSIONS :

| Width of Conductor<br>mm |                  |           | Tolerance on thickness<br>± mm |                     |                    |                      |
|--------------------------|------------------|-----------|--------------------------------|---------------------|--------------------|----------------------|
| Over                     | Up to &<br>incl. | Tol.( ± ) | Up to<br>1                     | Over 1 &<br>Incl. 3 | Over 3 &<br>Upto 6 | Over 6 &<br>up to 10 |
| -                        | 3                | 0.03      | 0.02                           | 0.03                | -                  | -                    |
| 3                        | 6                | 0.04      | 0.02                           | 0.03                | 0.04               | -                    |
| 6                        | 10               | 0.07      | 0.02                           | 0.03                | 0.04               | 0.07                 |
| 10                       | 18               | 0.10      | 0.02                           | 0.03                | 0.04               | 0.07                 |
| 18                       | 25               | 0.10      | 0.03                           | 0.04                | 0.06               | 0.08                 |

#### 6.3 Radius on Corners :

The conductor shall have radius corners, the radius of curvature together with the Tolerances being as given below. The arc shall merge smoothly in to the flat and the conductor shall be free from sharp, rough and projected edges.

| Thickness of strip, mm |               | Nominal Radius on edges<br>in mm | Tolerances<br>( ± mm ) |
|------------------------|---------------|----------------------------------|------------------------|
| Over                   | up to & incl. |                                  |                        |
| -                      | 1.2           | 0.4                              | 0.06                   |
| 1.2                    | 1.7           | 0.5                              | 0.08                   |
| 1.7                    | 2.5           | 0.6                              | 0.09                   |
| 2.5                    | 4.0           | 0.8                              | 0.12                   |
| 4.0                    | 10.0          | 1.0                              | 0.15                   |

#### 6.4 Tensile Strength & Elongation :

A sample of conductor 250 mm long between the grips shall be steadily elongated at a rate of 60 to 300 mm/minute until the conductor fractures. The tensile strength and elongation at fracture shall comply with the following requirements :

| Nom. Conductor Thickness<br>in mm |               | Tensile Strength<br>Max. | Elongation<br>at 200 mm G.L. |
|-----------------------------------|---------------|--------------------------|------------------------------|
| Over                              | Up to & incl. | N / m <sup>2</sup>       | % Min.                       |
| 0.8                               | 2.5           | 265                      | 30                           |
| 2.5                               | 10.0          | 255                      | 35                           |

**6.5 Hardness :**

Hardness on finished conductor shall not exceed 60 HV.

**6.6 Resistance :**

The resistance at 20 ° C of a conductor of one meter length and of uniform cross sectional area of 1 mm<sup>2</sup> shall be taken as 0.01737 ohm max.

**7.0 Increase In Dimensions Due To Covering :**

The increase in dimensions due to the enamel covering, shall conform to the values given below :

| Grade  | Increase in Dimension, mm |         |
|--------|---------------------------|---------|
|        | Minimum                   | Maximum |
| Fine   | 0.06                      | 0.11    |
| Medium | 0.11                      | 0.16    |

**8.0 ENAMEL COVERING:****8.1 General :**

The conductor shall be completely and uniformly covered with a durable, flexible synthetic enamel polyesterimide base . The enameled conductor shall have a smooth surface, free from embedded particles of dust and other deleterious materials.

**8.2 Flexibility And Adherence:**

Separate samples of conductors above 2 mm thickness shall be bent, one on edge and one on flat, through 180° round a mandrel of diameter 4 times the bare width of the conductor when bent on edge or four times the bare thickness when bent on flat.

Conductors of upto and including 2 mm thickness shall be pre-elongated by 10 percent and bent through 180° round a mandrel of diameter 9 times the thickness as per the standard procedure.

After bending the samples shall show no cracks and peeling off when examined under a magnification of approximately 10-15 times .

**8.3 Prolonged Heat Shock Test :**

Samples of conductor above 2 mm thickness shall be bent, on flat, through 180° round a mandrel of diameter 4 times the bare thickness of the conductor.

Conductors upto and including 2 mm thickness shall be pre-elongated by 10% and bent through 180° round a mandrel of diameter 9 times the thickness in accordance with the standard procedure.

The samples prepared as above shall be placed in an electrically heated forced air circulation oven at a temperature of  $180 \pm 2^\circ \text{C}$  for 48 hours. After removal from the oven, the samples shall be allowed to cool to room temperature and shall show no cracks when examined under a magnification of approximately 10-15 times.

**8.4 Thermal Endurance Test :**

The manufacturer shall certify that the enameled wire has been made using materials and process that have been shown to give a product which will meet the following requirement.

When tested by the method given in IS : 13778 Pt. 6 / IEC -851 Pt. 6 , temperature  $\hat{1}$  corresponding to an extrapolated life 20,000 hours shall be not less than  $155^\circ \text{C}$ .

**8.5 Hardness of Enamel :**

When tested under a thrust of 500 gf the hardness of the pencil which just fails to scrape off the enamel to the bare conductor shall be 5 H minimum.

**8.6 Resistance of Enamel to Varnish Solvent :**

Six samples of enameled conductors immersed in the solvents xylene butanol ( approx. 9 : 1 ) solvent naphtha, toluene, White spirit, methylated spirit (when specially demanded) butanol, butyl acetal for 24 hours at  $10^\circ$  to  $40^\circ \text{C}$  and allowed to dry for 30 minutes after removal. The hardness of enameled conductor so obtained shall not be reduced when compared to that specified in clause 8.5.

**8.7 Resistance of Enamel to Insulating Oil :**

The enameled conductor bent on flat as described in clause 8.2 & then immersed in oil conforming to IS:335 for 6 hours at  $110 \pm 2^\circ \text{C}$  and allowed to cool to room temperature. The hardness of enameled conductor so obtained shall not be reduced when compared to that specified in clause 8.5.

**8.8 Cure Test :**

A sample of the enameled wire shall be conditioned by baking at  $130 \pm 2^\circ\text{C}$ . for 10 minutes and allowed to cool to room temperature. Not less than 100 mm of the sample shall then be immersed, without bending for 5 minutes in a boiling mixture 30% commercial grade toluene and 70% denatured ethyl alcohol by volume. On removal from the liquid the enamel film shall show no visible swelling or blistering except on the last 10 mm of the immersed end.

**8.9 Electric Strength :**

When tested at  $155 \pm 2^\circ\text{C}$  by the method specified in IS:13730 Pt. 16 the enameled conductor shall not breakdown at a voltage less than specified below :

| Grade of covering | Breakdown Voltage Min |
|-------------------|-----------------------|
| Fine              | 750                   |
| Medium            | 1500                  |

**9.0 TEST CERTIFICATES:**

Unless otherwise stated, three copies of test certificates shall be supplied along with each consignment . In addition, the supplier shall ensure to enclose one copy of test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following

AA 28144 : Polyesterimide Enamelled Rectangular Copper Conductors  
(Rev.No 03) : Conductors. (Temp. Index 155)

BHEL Order No.

Manufacturer's/Supplier's Name.

Batch / Lot No.

Sizes and Quantity Supplied.

Test results / certificate of compliance with clause 6 to 8

Note: On first consignment for establishment of material, the supplier shall indicate the type and make of enamel used for the conductors, with their life time characteristics, for BHEL's approval. The approved enamel as identified by IR spectroscopy or any other suitable instrumental method shall only be used. On subsequent orders, supplier shall furnish a certificate that only the approved enamel have been used.



**CORPORATE PURCHASING SPECIFICATION**

**AA 28144**

**REV NO. 03**

**PAGE 6 OF 6**

**10. PACKING AND MARKING:**

The covered conductor shall be wound on Drum No. 4520 (Dia. Of flange to IS:2069 = 450 MM and approximate capacity = 55 Kgs.) . In all the cases, the covered strip shall be protected against possible damages from the inner faces of the flanges of the drums by lining each flange with stout paper or card.

Each drum shall be marked with the following :  
AA 28144 : Polyesterimide Enamelled rectangular Copper conductors  
(Temp. Index 155).

BHEL Order No.  
Suppliers Name  
Size of the Conductor  
Quantity

**11. Referred Standards (Latest Publications Ind. Amdts)**

- |                     |                  |             |
|---------------------|------------------|-------------|
| 1. IS : 13730 Pt.16 | 2. IEC 60317-0-2 | 3. IS : 191 |
| 4. IS : 13778 Pt. 6 | 5. IEC 851 Pt. 6 | 6. IS:335   |
| 7. IS : 2069        |                  |             |

↑

## Conflict of Interest:

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

- a) they have controlling partner (s) in common; or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- c) they have the same legal representative/agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly / Assemblies from one bidding manufacturer in more than one bid; or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:
  1. The principal manufacturer directly or through one Indian agent on his behalf; and
  2. Indian/foreign agent on behalf of only one principal.or
- g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or
- h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business. "

*Man*



JHS 2055A R03

## GENERAL TERMS AND CONDITIONS OF ENQUIRY

Page 1 of 12

| SN       | Description  |
|----------|--|
| <b>1</b> | <b>General:</b>  |
| <b>A</b> | These general terms & conditions shall apply to all enquiries, notice inviting tenders, request for quotations concerning the supply of goods and / or rendering of services to Bharat Heavy Electricals Ltd., Jhansi (hereinafter referred to as BHEL or the Purchaser) or its Projects / Customers.  |
| <b>B</b> | Special / supplementary enquiry conditions & Mandatory Sheet requirements, if any, covered in the respective enquiry, will override the relevant conditions mentioned in this document.  |
| <b>C</b> | Commercial Conditions quoted by the vendor in any place including as stated in bidder's 'General Terms and Conditions' if any, shall not be binding on the Purchaser. Only the conditions contained in this document, including special conditions, if any, for this enquiry shall prevail.  |
| <b>2</b> | <b>General Instructions - Common for Indigenous &amp; Foreign enquiries</b>  |
| <b>A</b> | Sealed bids are invited for scope of Supply / Services as detailed in the enquiry. The quotation should be neatly typed and free from over writing/ erasures. Any correction or addition must be authenticated.. Relevant enclosures, supporting documents, catalogue, samples, if any, as required as per Notice Inviting Tender (NIT) conditions shall be sent along with technical offer. Rate should be quoted in the units asked for in the enquiry. The rates should be quoted both in figures and words. In case of discrepancy in figures and words, the rates quoted in words shall be considered.  |
| <b>B</b> | <p>Bids shall be submitted in a Sealed cover with Enquiry No., Due date and Bidder's name indicated on the Cover. The Cover should contain both <b>Part-I</b> and <b>Part -II</b> bids, as the case may be.</p> <p><b><u>Part – I bid</u></b></p> <p>In case of Two part Bid, <b>Part – I</b> bid i.e. <b>Technical bid</b> containing (i) technical offer, (ii) Mandatory Sheet, (iii) <b>un-priced copy</b> of the Price Bid, (iv) EMD ( if called in NIT), and (v) Relevant documents of PQR ( if called in NIT), all duly filled-in &amp; signed; should be kept in one envelope. The Part – I bid Cover items should have Enquiry No., Part I Bid, Due date, and Bidder's name indicated on the Cover</p> <p><b><u>Part –II Bid wherever Reverse Auction is not called for</u></b></p> <p><b>Part – II</b> bid i.e. <b>Price Bid</b> containing only the price (as called for in the price format where required), duly filled-in &amp; signed; should be kept in a <b>separate envelope</b>. The Price bid Cover items should have Enquiry No., Part II Bid, and Bidder's name indicated on the Cover</p> <p><b><u>Part –II Bid wherever Reverse Auction is called for</u></b></p> <p><b>Part – II</b> bid i.e. <b>Price Bid</b> containing only the price (as called for in the price format where required), duly filled-in &amp; signed; should be kept in a <b>separate envelope</b>. Wherever, BHEL informs that it proposes to conduct Reverse Auction for many items in the tender and where evaluation of the tender is on individual item basis, separate Part – II bids are to be submitted for each of the item. The Price bid Cover for each of the items should have Enquiry No., Part II Bid, Item no of Enquiry, and Bidder's name indicated on the Cover</p> <p>The envelopes indicating Part –I or Part-II, as the case may be, to be put in a bigger envelope, which should be addressed to In-charge, Tender Room, Bharat Heavy Electricals Ltd., Administration Building, Jhansi 284120. Enquiry No., due date and bidder's name must be mentioned on the bigger envelope. Offer must reach tender room of BHEL Jhansi latest by 13.15 hrs of the enquiry due date.</p> <p>In case, the bids are not submitted in the manner stated above, the offer of the bidder(s) are liable to be rejected.</p> <p>It is preferred that offers are sent in sealed envelope. However, if the bidder chooses to send the offer through E-mail, offers received through E-mail shall be considered only when such offers are complete in all respects.. In cases of offers through E-mail, the offers shall be sent to <a href="mailto:tenderbox.jhs@bhel.in">tenderbox.jhs@bhel.in</a>, wherein the Subject of the Email should mention the Enquiry Number. E mail offers sent to any other E mail ID shall not be entertained. BHEL shall not take any responsibility if the offers are incomplete or if the Enquiry number is not mentioned in the subject of the E-mail.</p> |
| <b>C</b> | Wherever BHEL proposes to issue tender through e –procurement, the same philosophy as mentioned in 2B above is ensured through suitable system locks.  |
| <b>D</b> | Offer received after 13.15 hrs of the due date will be termed as "Late" and shall not be considered  |



JHS 2055A R03

**GENERAL TERMS AND CONDITIONS OF ENQUIRY**

Page 2 of 12

|          |  |
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|          | <p>BHEL reserves the right to go for Reverse Auction (RA) (as per Guidelines available on <a href="http://www.bhel.com">www.bhel.com</a>) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non consideration of their bids, in case BHEL decides to go for RA. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on <a href="http://www.bhel.com">www.bhel.com</a>).</p>  |
| <b>E</b> | <p>The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be processed on lower of the two bids (RA closing price &amp; envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.</p> <p>If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on <a href="http://www.bhel.com">www.bhel.com</a>)</p>   |
| <b>F</b> | <p>The goods offered shall conform to BHEL specifications / drawings and / or Indian / International standards as mentioned in the Enquiry and the bidder is required to confirm his unconditional acceptance to the same. Vendors, seeking deviations from the specifications and any other conditions, may indicate the same clearly on a separate sheet, with reasons for such deviations. BHEL reserves the right to reject the offer with deviations or load the deviations suitably for evaluation.</p>  |
| <b>G</b> | <p>Offers shall be submitted directly by vendor or his authorized agent/representative only. Offers from any other sources shall be considered as unsolicited and shall be summarily rejected.</p>   |
| <b>H</b> | <p>Bid in single part or techno-commercial bid in <b>two</b> part system (as the case may be) will be opened on the due date. In case of two part bid, price bids of techno-commercially acceptable bidder(s) only shall be opened on the assigned date, for which separate intimation will be sent to the acceptable bidders.</p>   |
| <b>I</b> | <p>The bidder whose bid is technically not accepted will be informed &amp; EMD wherever submitted shall be returned along with his price bid within <u>30 days</u> of contract finalization date. No interest will be payable on EMD amount. EMD shall however be forfeited in the event of bidder backing out after submission of the bid.</p>  |
| <b>J</b> | <ol style="list-style-type: none"><li>1. Any discount / revised offer submitted by a bidder on its own shall be considered, provided it is received on or before the due date and time of offer submission (Part-I). Conditional discounts shall not be considered for evaluation of tenders.</li><li>2. Unsolicited discounts / revised offers given after Part-I bid opening shall not be accepted. No change in price will be permitted within the validity period asked for in the enquiry.</li><li>3. In case of changes in scope and / or technical specification and / or commercial terms &amp; conditions, having price implication, techno-commercially acceptable bidders shall be asked by BHEL to submit the impact of such changes on their price bids. A suitable cut-off date and time shall be given to all the techno-commercially acceptable bidders to submit the impact on their price bids. In case a bidder opts to submit revised price bid instead of impact called for, then their original price ( i.e. previous bid) shall be necessarily opened to know the price impact. .</li></ol> |
| <b>K</b> | <p>The bidders will submit Integrity Pact, duly signed by its authorized signatory, if called for in the enquiry.</p>  |
| <b>L</b> | <p>Wherever the enquiry is issued to unregistered vendor referred by BHEL Customer, the bidder shall submit the Supplier Registration Form (SRF) online at <a href="http://www.bhel.com">www.bhel.com</a> and submit the signed copy of the duly filled-in SRF along with the bid. Price bids of such vendors, will be opened only on techno-commercial acceptance of bid and if allotted permanent code before the date of price bid opening.</p>   |
| <b>M</b> | <p>BHEL expects that the bidder must respond to the enquiry. Regret letter, with valid reasons for not participating in the tender will be submitted where the bidder is unable to submit offer. Repeated lack of response on the part of vendor may lead to his deletion from BHEL's approved vendor list.</p>  |
| <b>N</b> | <p>Goods shall be properly packed to avoid transit damage. Suitable markings shall be provided to identify the goods with that of the PO No, Item no. and the consignee details.</p>   |
| <b>O</b> | <p>Goods shall be consigned to Manager , Stores (CRX), BHEL, Jhansi - 284120, India, unless otherwise specified in the PO.</p>   |
| <b>P</b> | <p>Offers of the Bidders who are under HOLD or are under Interim Suspension or are on the banned list ( as on date of Price bid opening ) and / or those bidders who engage services of such suspended / banned firms, shall be rejected. The list of firms banned by BHEL is available on BHEL web site <a href="http://www.bhel.com">www.bhel.com</a>. The list of firms suspended by BHEL, Jhansi is available on <a href="http://www.bheljhs.co.in">www.bheljhs.co.in</a>. The " Guidelines for suspension of business dealings with Suppliers / Contractors" is uploaded on BHEL website <a href="http://www.bhel.com/vender_registration/vender.php">http://www.bhel.com/vender_registration/vender.php</a></p>  |

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| <b>Q</b> | In case of press tenders (i.e. those published in newspapers) all corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on BHEL website. ( <a href="http://www.bhel.com">www.bhel.com</a> & <a href="http://www.bhejhs.co.in">www.bhejhs.co.in</a> ) only. Bidders responding to press tender should regularly visit website(s) to keep themselves updated.   |
| <b>R</b> | In case the bidder decides to sub-contract part of his activity / work to some of his vendors, details of such intended subcontracting shall be mentioned in the bid. This will however not absolve the bidder from his contractual obligations and responsibilities.  |
| <b>S</b> | In the course of evaluation, if more than one bidder happen to occupy L-1 status and the order is to be placed on a single vendor, effective L-1 will be decided by soliciting discounts from the respective L1 bidders.. In case more than one bidder happen to occupy the L1 status even after soliciting discounts, the L1 bidder shall be decided by, a toss / draw of lots, in the presence of the respective L1 bidder(s). BHEL's decision in such situations shall be final and binding.  |
| <b>T</b> | Wherever the minimum reserved capacity is called for in the tender, the offers of such bidders, who do not quote for the minimum reserved capacity, are liable to be rejected.   |
| <b>U</b> | <p>Due to large qty. requirement, we may finalize the tendered quantities among more than one bidder (after acceptance of L1 price by the other bidders), but limited to the capacity quoted by the bidder. Indicate your committed capacity for the item(s) tendered and confirm that capacity offered by you against our tender shall be available for us during the entire period of the Purchase Order / Contract.</p> <p>Where the number of qualified responses (N) are three or more, the distribution shall be limited to (N-1) responses. The manner and proportion of distribution shall be mentioned in the specific enquiry. Normally, the quantity distribution shall be generally as per quantities allocated to the bidder, but limited to the capacity quoted by the bidder.</p> <p>While the manner of distribution is mentioned in the enquiry, the absolute values of the unit of measurement shall be rounded off. For eg : If an allocation of 40% quantity results in 23.5 units, the quantity allocated shall be 24 units. If an allocation of 40% quantity results in 23.3 units, the quantity allocated shall be 23 units</p> <p>The distribution shall be based on the acceptance given by bidders to the L1 price counter offered to them. In case any or all of the bidders do not accept the counter offer, and a situation arises wherein bidder(s) who have agreed to the counter offer may have to be allotted more quantity than what has been proposed earlier, then the same shall be done, but limited to the capacity quoted by the bidder (s).</p> <p>Wherever, the number of techno commercially qualified responses (N) is two, BHEL reserves the right on whether or not to distribute the quantity on more than one bidder</p> <p>While the above pattern shall also be followed in long term framework agreements ( FA), performance of the suppliers shall be monitored periodically, and the loading in FA will also be subject to factors like (a) Customer approval of suppliers in specific projects, (b) quality surveillance at Supplier works, (c) Suppliers delivery and quality performance during execution of FA, (c) Pendency of orders on the supplier and (d) responsiveness in addressing post order completion issues at BHEL. In view of these factors, the loading during execution of FA may vary with respect to allocated quantity. During execution of FA, if the performance of supplier is not upto the mark in respect of delivery / quality performance / quoted capacity of the bidder, BHEL reserves the right to either reduce further loading or stop loading till the execution of overdue orders. In such cases, action shall be taken against the defaulting supplier(s) as per guidelines of the Company, and the balance allocated full or part quantity of the defaulting supplier(s) may be re-distributed amongst other performing and willing vendors of the FA..</p> |
| <b>V</b> | The bidder shall submit price bid strictly in the price format, wherever provided for, in the enquiry. Any attempt on the part of the bidder to alter the contents of the price bid format in any manner, which in the opinion of BHEL can vitiate the tendering process, will lead to rejection of the bid, <i>besides BHEL taking appropriate punitive action as deemed fit.</i>   |
| <b>3</b> | <b>Vendor's particulars &amp; logistics information</b>  |
|          | Bidder to provide contact details and all logistical information as called for in the Mandatory Sheet enclosed to this enquiry   |
| <b>4</b> | <b>Delivery Schedule &amp; Completion date</b>   |
| <b>A</b> | <ul style="list-style-type: none"> <li>• Instead of writing specific date against delivery offered, Bidder shall commit delivery period in number of days / weeks/ months to suit the delivery period indicated in the enquiry.</li> <li>• Commencement of delivery period shall be reckoned from the date of PO / LOI or any other agreed milestone.</li> <li>• Seller shall deliver the goods in the manner and schedule agreed under the Purchase order.</li> <li>• Goods shall be delivered within contractual period or any extension thereof, if any, granted by the Purchaser.</li> </ul>   |



JHS 2055A R03

## GENERAL TERMS AND CONDITIONS OF ENQUIRY

Page 4 of 12

|           |  |
|-----------|--|
| <b>B.</b> | In case of foreign supplies, bidders are to quote for CIF/CFR delivery terms .For CIF / CFR delivery terms, the date of bill of lading (BL) shall be taken as actual date of delivery.   |
| <b>C.</b> | In case of Indigenous bidders, the date of delivery at named destination in India shall be taken as contractual delivery completion date where delivery terms are FOR destination. In case of 'Ex-works' delivery terms, the date of LR / RR shall be the contractual delivery completion date.  |
| <b>D</b>  | In case of unreasonable delivery quoted by the bidders, BHEL reserves the right to reject such offers.   |
| <b>5</b>  | <b>Transit Insurance</b>   |
|           | Except where delivery terms are agreed on CIF basis for Imports & FOR destination basis for indigenous purchases, transit insurance will be covered by BHEL under its open Marine Insurance Policy. Seller shall inform dispatch particulars with value of consignment to the Purchaser within 07 days of dispatch for BHEL to arrange insurance coverage in its policy. Failure on the part of seller to inform dispatch particulars will make him liable to pay for any transit damages / losses suffered by the Purchaser.  |
| <b>6</b>  | <b>Delivery Terms</b>  |
| <b>A</b>  | <b>Indigenous Purchase</b>   |
|           | Goods shall be delivered on 'FOR Destination' basis ( with freight and insurance in bidder scope) to the named destination unless otherwise called for in the enquiry. In case the bidder quotes on Ex-Works, the offer of such bidder(s) is/are liable to be rejected.<br><br>Wherever the PO terms mentions delivery terms as FOR Destination basis, and In the event of supplier having supplied the material by BHEL Truck / Vehicles as per BHEL transportation rate contract, thus causing BHEL to bear the freight charges, the corresponding amount ,incurred / estimated, shall be deducted from the bills of the Supplier.   |
| <b>B</b>  | <b>Foreign Purchase – Imports</b>  |
|           | <ol style="list-style-type: none"><li>1. Goods shall be dispatched by sea on CIF/CFR basis, unless stated otherwise in the enquiry or purchase order. The destination shall at Navsheva, Mumbai for LCL/Breakbulk Cargo and ICD, Mandideep, Madhya Pradesh for FCL Cargo</li><li>2. If air freight is called for in the enquiry, the goods shall be delivered on FCA basis to the named Airport</li><li>3. Please visit BHEL Jhansi web site <a href="http://www.bheljhs.co.in">www.bheljhs.co.in</a>for details of named Airports. . Name of the airport so chosen by the Seller shall be indicated by the Bidder in his offer.</li><li>4. Goods shall be handled for air freight by BHEL's freight forwarder only, under FCA contracts and HAWB issued by BHEL appointed forwarder or his authorized agent(s) shall only be accepted for negotiation.</li></ol>  |
| <b>C</b>  | <ul style="list-style-type: none"><li>• In the event of bidder offering CFR or CIF delivery terms for delivery in FCL(Full Container Load), the Bidder shall provide <b>14 days' time free of detention</b> from the date of delivery at delivery port. Wherever the detention free period offered is less than 14 days, the bids shall be <b>loaded</b> for the period short of 14 days period.</li><li>• <u>Port congestion charges or any additional charges claimed by shipping line till delivery at destination port shall be to the Seller's account.</u></li><li>•</li></ul>   |
| <b>7</b>  | <b>Force Majeure</b>   |
|           | Notwithstanding anything contained in the contract, neither the Seller nor the Purchaser shall be held responsible for total or partial non-execution of any of the contractual obligations, should the obligation become unreasonably onerous or impossible due to occurrence of a 'Force Majeure' which directly affects the obligations to be performed by the Purchaser or the Seller; Such events include war, military operations of any nature, blockages, revolutions, insurrections, riots, civil commotions, insurgency, sabotage, acts of public enemy, fires, explosion, epidemics, quarantine restrictions, floods, earthquake, or acts of God, restrictions by Govt. authorities; over which the Seller or the Purchaser has no control.<br><br>The party claiming to be affected by force majeure shall notify the other party in writing without delay, within two weeks on the intervention and on the cessation of such circumstance. Extension of time sought by the Seller along with supporting evidence and so granted by the Purchaser for the supply/ work affected, if any, shall not be construed as waiver in respect of remaining deliveries. Rescheduling of deliveries on account of force majeure conditions, if so agreed by the Purchaser, will not entail the Seller to claim any increase in the price on whatsoever account. |



JHS 2055A R03

**GENERAL TERMS AND CONDITIONS OF ENQUIRY**

Page 5 of 12

|          |  |
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|          | Notwithstanding above provisions, Purchaser shall reserve the right to cancel the order/ Contract, wholly or partly, in order to meet the overall project schedule and make alternative arrangements. If deemed necessary, Purchaser may takeover partly processed material at a mutually agreed price.  |
| <b>8</b> | <b>LD / Penalty for delayed performance.</b>   |
| <b>A</b> | <p>I. Subject to force majeure conditions, LD shall be 0.5% of the total order value per week of delay or part thereof, subject a maximum of 10% of the total order value.</p> <p>II. In case of staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week or part thereof subject to a maximum of 10% of the undelivered portion .</p> <p>III. However in case of Capital Machine / BOP where staggered deliveries may be applicable, the LD cap will be levied on total order value inclusive of E&amp;C charges. (15% )</p> <p>IV. Wherever Erection &amp; Commissioning ( E&amp; C) is called for, the vendor is provided a stipulated period from date of site readiness. LD shall be applicable for any delay beyond the stipulated period mentioned in the PO.</p> <p>V. In case of any amendment / revision, the LD shall be linked to the amended / revised PO value.</p> <p>VI. Any loading on LD clause shall be to the extent to which it is not agreed to by the bidder ( at offered value)</p> <p>For the sake of clarity – Total order value means purchase order value ( exclusive of taxes ), Undelivered portion means , the delayed portion for the given lot.</p> <p>In case a supply is rejected and the same is replaced at a later date, the date of replacement of accepted supply shall be reckoned for calculation of LD</p> |
| <b>B</b> | In case the contractually agreed delivery date falls on a holiday in BHEL Jhansi, the next working day shall be taken as contractual delivery date for compliance and applicability of LD / penalty.   |
| <b>C</b> | <p>In case of Ex works Delivery terms for Indigenous supplies, the date LR shall be reckoned for LD deduction.</p> <p>In case of FOR Delivery terms, the date of entry in BHEL Jhansi ( CISF date ) shall be reckoned for LD deduction.</p> <p>In case of FCA Delivery terms / Ex Works Delivery terms of Foreign supplies , the date Invoice / Packing List / Test Certificate, whichever date is later, shall be reckoned for LD deduction.</p> <p>In case of FOB / CIF / CFR / CIP Delivery terms, the date of Bill of Lading , shall be reckoned for LD deduction.</p>   |
|          | <b>Risk Purchase.</b>  |
| <b>C</b> | <p>If the material is not supplied within the agreed delivery period, BHEL reserves the right to cancel the order and purchase the material( of the undelivered portion ) from alternate source(s) at the Risk and Cost of the Seller. In such an event, it shall be obligatory on the part of seller to make good any loss suffered by the purchaser. In such cases, BHEL shall withhold bills, bank guarantees, etc of the Supplier, which are pending either at BHEL, Jhansi or any other Unit of BHEL . Wherever Risk purchase is invoked attracting action as per guidelines of the Company, action shall be initiated to suspend business dealings with the Supplier. To know the implications of suspension, the bidder may see the “ Guidelines for suspension of business dealings with Suppliers / Contractors” which is uploaded on BHEL website <a href="http://www.bhel.com/vender registration/vender.php">http://www.bhel.com/vender registration/vender.php</a></p>  |
| <b>9</b> | <b>Indian Agents and Agency commission</b>   |
| <b>A</b> | BHEL prefers to deal directly with Foreign vendor, wherever required, for procurement of Goods. However if the Foreign Principal desires to avail services of an Indian Agent, then the Principal should ensure compliance to “regulatory guidelines” which will require submission of an agency agreement. The agency agreement should specify the precise relationship between the foreign OEM / foreign Principal and their Indian Agent. Any payment which the Indian agent receives in India or abroad from the OEM, whether as commission or as a general retainer fee, should be brought on record in the agency agreement.   |
| <b>B</b> | The CIF price quoted will be deemed to be inclusive of Indian Agency commission. Agency commission as disclosed by the bidder in his quoted CIF price will be paid in Indian Rupees on receipt & acceptance of Materials or it's installation at destination, as the case may be. The lower of the TT selling rate prevailing on the date of (a_ technical bid opening, or (b) price bid opening, or (c) date of invoice, shall be considered for computation of Agency commission.  |
| <b>C</b> | Be it a case of a Foreign / Indigenous Principal or OEM, in a tender either the Indian Agent on behalf of Principal / OEM or the Principal / OEM itself can bid, but both cannot bid simultaneously for same item / product in the same Tender. In case both submit a bid in the tender, then the bid of OEM only shall be opened  |



JHS 2055A R03

## GENERAL TERMS AND CONDITIONS OF ENQUIRY

Page 6 of 12

|             |  |  |  |  |            |  |  |            |   |  |
|-------------|--|--|--|--|------------|--|--|------------|---|--|
| <b>D</b>    | Be it a case of a Foreign / Indigenous Principal or OEM, If an agent submits Bid on behalf of the Principal / OEM, the same agent shall not submit bid on behalf of another Principal / OEM in the Tender, for the same Item / Product.  |  |  |  |            |  |  |            |   |  |
| <b>10</b>   | <b>Documentation:</b>  |  |  |  |            |  |  |            |   |  |
| <b>A</b>    | <b>Indigenous Purchase</b>   |  |  |  |            |  |  |            |   |  |
|             | <p>Immediately on despatch of Goods, the following documents shall be necessarily sent by the Seller to the respective address(es) mentioned below</p> <table border="1" data-bbox="297 449 1479 968"> <tr> <td data-bbox="297 449 358 632"><b>(a).</b></td> <td data-bbox="358 449 740 632"> <b>Addressed to:</b><br/> Addl General Manager (Stores)<br/> Main Store Building<br/> BHEL Jhansi PIN-284120<br/> Telephone . 0510-2412230 </td> <td data-bbox="740 449 1479 632"> <b>Documents to be sent:</b><br/> (i) GST compliance Invoice – Duplicate for Transporter<br/> (ii) Challan/Despatch Advice note / Packing List etc. + 1 Photo copy<br/> (iii) Test Certificate, Guarantee / Warrantee Certificate<br/> (iv) LR/RR Duplicate for Transporter copy<br/> (v) O&amp;M Manuals, wherever applicable </td> </tr> <tr> <td data-bbox="297 632 358 842"><b>(b)</b></td> <td data-bbox="358 632 740 842"> <b>Addressed to:</b><br/> Dy. General Manager (Finance)<br/> Administrative Building<br/> BHEL Jhansi PIN-284120 </td> <td data-bbox="740 632 1479 842"> <b>Documents to be sent:</b><br/> (i) GST compliance Invoice – Original for Buyer<br/> (ii) Copy of LR/RR<br/> (iii) Copy of Test Certificate<br/> (iv) PVC Calculation sheet, if any, with supporting documents.<br/> (v) MOM with BHEL Customer ( if called for in the PO ) in case of installation &amp; commissioning at Customer Site<br/> (vi) Capitalization Certificate, if called for in the PO </td> </tr> <tr> <td data-bbox="297 842 358 968"><b>(c)</b></td> <td data-bbox="358 842 740 968"> <b>Addressed to:</b><br/> Dy. General Manager (MM)<br/> Administrative Building<br/> BHEL Jhansi PIN-284120 </td> <td data-bbox="740 842 1479 968"> <b>Documents to be sent:</b><br/> (i) GST compliance Invoice – Extra copy / Photo copy<br/> (ii) Challan/Despatch Advice note<br/> (iii) Test Certificate, Guarantee / Warrantee Certificate<br/> (iv) Copy of LR/RR </td> </tr> </table> <p>In case any other documents are required, the distribution of such documents will be specified in the Purchase order.</p> <p>Further, if specified in the Purchase order, all the details and copies of documents have to be uploaded by Supplier on BHEL portal before despatch of Goods</p> | <b>(a).</b>  | <b>Addressed to:</b><br>Addl General Manager (Stores)<br>Main Store Building<br>BHEL Jhansi PIN-284120<br>Telephone . 0510-2412230 | <b>Documents to be sent:</b><br>(i) GST compliance Invoice – Duplicate for Transporter<br>(ii) Challan/Despatch Advice note / Packing List etc. + 1 Photo copy<br>(iii) Test Certificate, Guarantee / Warrantee Certificate<br>(iv) LR/RR Duplicate for Transporter copy<br>(v) O&M Manuals, wherever applicable | <b>(b)</b> | <b>Addressed to:</b><br>Dy. General Manager (Finance)<br>Administrative Building<br>BHEL Jhansi PIN-284120 | <b>Documents to be sent:</b><br>(i) GST compliance Invoice – Original for Buyer<br>(ii) Copy of LR/RR<br>(iii) Copy of Test Certificate<br>(iv) PVC Calculation sheet, if any, with supporting documents.<br>(v) MOM with BHEL Customer ( if called for in the PO ) in case of installation & commissioning at Customer Site<br>(vi) Capitalization Certificate, if called for in the PO | <b>(c)</b> | <b>Addressed to:</b><br>Dy. General Manager (MM)<br>Administrative Building<br>BHEL Jhansi PIN-284120 | <b>Documents to be sent:</b><br>(i) GST compliance Invoice – Extra copy / Photo copy<br>(ii) Challan/Despatch Advice note<br>(iii) Test Certificate, Guarantee / Warrantee Certificate<br>(iv) Copy of LR/RR |
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| <b>(b)</b>  | <b>Addressed to:</b><br>Dy. General Manager (Finance)<br>Administrative Building<br>BHEL Jhansi PIN-284120   | <b>Documents to be sent:</b><br>(i) GST compliance Invoice – Original for Buyer<br>(ii) Copy of LR/RR<br>(iii) Copy of Test Certificate<br>(iv) PVC Calculation sheet, if any, with supporting documents.<br>(v) MOM with BHEL Customer ( if called for in the PO ) in case of installation & commissioning at Customer Site<br>(vi) Capitalization Certificate, if called for in the PO |  |  |            |  |  |            |   |  |
| <b>(c)</b>  | <b>Addressed to:</b><br>Dy. General Manager (MM)<br>Administrative Building<br>BHEL Jhansi PIN-284120  | <b>Documents to be sent:</b><br>(i) GST compliance Invoice – Extra copy / Photo copy<br>(ii) Challan/Despatch Advice note<br>(iii) Test Certificate, Guarantee / Warrantee Certificate<br>(iv) Copy of LR/RR   |  |  |            |  |  |            |   |  |
| <b>B</b>    | <b>Foreign Purchase – Imports</b>  |  |  |  |            |  |  |            |   |  |
|             | <p>Seller shall send 1 set of following documents, in English, within 7 days of BL date by courier to the Purchaser</p> <ol style="list-style-type: none"> <li>Original Clean on board Bill of lading.</li> <li>One set of Commercial Invoice, Packing list indicating container-wise Gross weight, net weight, CBM ( cubic metre) volume, No. of packages with Dimensions of each package.</li> <li>Original certificate of Country of Origin issued by Chamber of Commerce</li> <li>One set of Original test certificates and O&amp;M manual where called for.</li> <li>Fumigation certificate wherever cargo is packed in wooden packing or packing of Plant origin material is used.</li> </ol> <p>In case the Seller decides to negotiate all 3 originals of BL through negotiating Bank, non-negotiable documents (NND) consisting of copy of BL / HAWB &amp; all originals at sl.no. 10-B2 to B5 will be couriered to Purchaser. Soft Copy of documents at sl. 10-B1 to B5 will also be sent by e-mail to the Purchaser at the e-mail address given in the PO. Other documents, as required, will be separately indicated in the Purchase Order. Additional expenditure, if any, incurred by the Purchaser by way of detention / demurrage, resulting out of delay attributable to the Seller in providing negotiable documents, will be recovered from the Seller.</p>   |  |  |  |            |  |  |            |   |  |
| <b>C</b>    | In case of incomplete documentation, the communication shall be provided to supplier. The delays in submission of documentation by the supplier shall be reckoned while releasing payments to the Supplier   |  |  |  |            |  |  |            |   |  |
| <b>11</b>   | <b>Pricing Terms</b>   |  |  |  |            |  |  |            |   |  |
|             | Prices once quoted shall remain firm within the validity or any extension thereof for placement of order, till complete execution of the order, without any escalation/increase for any reason, whatsoever, unless specifically provided for in the Enquiry & PO. In case of foreign vendors, the quoted price shall be taken as inclusive of Third Party Inspection and testing charges as called for in the NIT.   |  |  |  |            |  |  |            |   |  |



JHS 2055A R03

## GENERAL TERMS AND CONDITIONS OF ENQUIRY

Page 7 of 12

|           |   |
|-----------|---|
| <b>12</b> | <b>Price Validity :</b>   |
|           | <p>Unless stated otherwise in the enquiry, offer shall be valid for a period of 120 days from the date of Techno- commercial (Part-I) bid opening date.</p> <p>The prices quoted for spare parts of the main equipment shall be kept valid for a period of 180 days from the date of placement of PO for the main equipment.</p>  |
| <b>13</b> | <b>Taxes &amp; Duties - Indigenous Purchase</b>   |
| <b>A</b>  | <p>The Taxes and duties as applicable shall be payable extra which may include GST against Gate pass- The Seller shall clearly indicate extent of taxes as applicable in his techno commercial bid. In the event of vendor failing to furnish valid GST invoices with appropriate HSN Code , amount corresponding to GST will be disallowed by BHEL while making payments.</p> <p>Bidders to ensure applicability of IGST / CGST/SGST based on the Inter / Intrastate movement of goods.</p> <p>GST Registration Number (GSTIN) should be clearly mentioned on the vendor's quotation.</p> <p>Please quote our IGST registration number 09AAACB4146P2ZC in all invoices raised for supply of goods and services under GST regime and also ensure filing of timely return and payment of tax and compliance of other applicable provisions on supplier under GST regime.</p> <p>In the event of any disallowance of input credit or applicability of interest or any other financial liability arises on BHEL-Jhansi due to any default of supplier under GST such implication shall be to supplier's account.</p> <p>GST shall be levied on LD and the relevant tax invoice shall be provided to vendors for availing credit.</p> <p>In case of directly despatchable items to Customer's Site, Supplier to bill to BHEL Jhansi at its GST Account number 09AAACB4146P2ZC and ship to the respective Customer</p> <p>Since, input credit of GST will be available to BHEL-Jhansi only after correct filing of return and payment of applicable GST by supplier, reimbursement of GST shall be made by BHEL-Jhansi on matching of vendor inputs at GST portal and after ensuring availability of input credit to BHEL-Jhansi. Payment of tax shall be done only after availing matching ITC, in all cases where bills are submitted directly to BHEL-Jhansi or through bank or under LC or through any other mode.</p> <p>Other statutory declaration forms are also to be submitted in time, as mentioned in the relevant Laws. BHEL reserves the right to withhold the payment due to the vendor equivalent to BHEL's tax and related liability thereon.</p> <p>In case of any changes in statutory laws w.r.t. taxes and duties, the same shall be applicable at the given point of time.</p> |
| <b>B</b>  | <p><i>Wherever GST is not applicable, the tax and duty structure , as applicable, is to be complied by the seller.</i></p>  |
| <b>14</b> | <b>Taxes &amp; Duties - Foreign Purchase – Imports</b>  |
| <b>A</b>  | <p>The offered prices shall be inclusive of all the Taxes and duties as applicable in the country of bidder / country of dispatch for the quoted FCA / CFR/CIF price.</p>   |
| <b>15</b> | <b>Payment Terms-</b>   |
| <b>A</b>  | <p><b>Indigenous:</b> 100 % payment within 90 days ( 45 days for MSE / NSIC registered suppliers as per relevant act in force ) from the date of receipt of material and submission of clear and admissible bill, subject to acceptance of material at BHEL , on direct presentation of the documents..</p> <p>Payments to vendors who are seeking benefits under MSME act shall not be entertained if the Udyog Aadhar Memorandum (UAM ) submitted by them is not valid on the date of Purchase Order and date of supply ( SRV Date of BHEL ) . It is hence in the interest of the vendor that they validate the status of UAM regularly with BHEL.</p> <p>In case of despatch of material to site directly, site certification for receipt of materials is required unless otherwise provided for in the PO. Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate( as on date of Part I bid opening) + 6%, for the purpose of bid evaluation.</p>   |



JHS 2055A R03

## GENERAL TERMS AND CONDITIONS OF ENQUIRY

Page 8 of 12

|           |   |   |  |   |   |   |  |
|-----------|---|---|--|---|---|---|--|
|           | All documents as called for in the PO have to be submitted by the Supplier at the time of receipt of material and this should include the Invoice of the Supplier - Original copy of the Buyer and Duplicate for Transporter. On receipt of Invoice, the same shall be acknowledged by BHEL. Any clarifications on the bill submitted by the supplier shall be sought generally within 30 days ( 15 days for MSE / NSIC registered suppliers as per relevant act in force ) of receipt of bill at BHEL. While it would be in the interest of the Supplier to provide the reply immediately to the clarifications sought , the Supplier is to respond at least within 7 days from the date of clarifications sought by BHEL. Wherever clarifications are sought by BHEL, the date of receipt of clarifications from the supplier shall be considered as date of submission of clear and admissible bill.   |   |  |   |   |   |  |
| <b>B</b>  | <b>Foreign:</b> 100% against irrevocable, unconfirmed LC, payable within 120 days of the bill of lading (BL) date. In case BHEL considers any deviation in payment terms i.e. early payment based on vendor's request, then bids shall be evaluated with loading of State bank of India Base rate ( as on date of Part I bid opening) plus 6%, for the credit period short of 120 days. The LC shall be established 2 month prior to shipment date, valid for period of 120 days, unless agreed otherwise.<br>Payment terms of CAD payable on 120 <sup>th</sup> day of BL / HAWB date shall be preferred.   |   |  |   |   |   |  |
| <b>C</b>  | While there could be exceptional situations wherein the payment may be delayed beyond the stipulated time mentioned above, it is clarified that BHEL shall not pay any interest on such delays  |   |  |   |   |   |  |
| <b>D</b>  | In case of any disagreement between BHEL and the Supplier on any part of the bill, such part shall be severed from the rest and payment against agreed and admissible part shall be processed as per laid down procedure, while the disputed part shall be dealt as per contract provisions viz. conciliation, dispute resolution, arbitration, etc   |   |  |   |   |   |  |
| <b>16</b> | <b>Inspection of Goods</b>  |   |  |   |   |   |  |
| <b>A</b>  | The Seller shall give adequate notice, of 1 week or as mutually agreed period, in writing to the Purchaser about the date and place at which the goods will be ready for inspection/ testing, as provided for in the contract.  |   |  |   |   |   |  |
| <b>B</b>  | Purchaser or his authorized representative shall be entitled to carry out inspection of material and workmanship at Seller's premises or at his sub-contractor's premises at all reasonable times during execution of contract; Such inspection, examination and testing, if made, shall not absolve the Seller from his obligations under the contract.  |   |  |   |   |   |  |
| <b>C</b>  | All costs related to inspections and re-inspections shall be borne by the Seller. In case of foreign vendors, the cost of third party inspection, where called for, shall be deemed to be included in the quoted price. Seller shall be responsible to provide assistance such as labour, materials, electricity, fuels, stores, apparatus, instruments at his cost, as may be required and as may be reasonably demanded to carry out such tests effectively.  |   |  |   |   |   |  |
| <b>D</b>  | <b>Undertaking to be provided by Suppliers before despatch</b> : The suppliers , before despatching the jobs, shall provide an undertaking on their letterhead, that the jobs have been made as per BHEL Specification / Drawings, that the test results meet the specified parameters of the drawing / specification, that the supplies have been inspected as per Quality Plan ( if called for in the Purchase Order ), that on receipt of supplies at BHEL, Jhansi; BHEL reserves the right to reject any supplies which are non compliant, that in case the material is accepted with deviationst wherever rectifications / rework is observed, that the Supplier shall be given seven days notice to attend to the work and if the Supplier does not attend the rectifications in the said period, BHEL shall reserve the right for suitable deductions.<br><br>Despatch clearance shall be given when the Supplier provides the above undertaking ( as per Annexure I ) to BHEL |   |  |   |   |   |  |
| <b>E</b>  | <b>Uploading despatch information on BHEL SIP</b><br><br>The supplier has to upload despatch information details by logging in at ' <b>Supplier Information Portal</b> ' of BHEL Jhansi website using their User name ( Vendor Code ) and Password. Subsequently, the supplier has to click at the link' <b>Update Consignment details</b> ' provided therein.Submitting ' <b>Despatch Intimation</b> ' is <b>mandatory</b> . All supplies arriving (reaching BHEL Jhansi) will be allowed inside CISF Material gate of BHEL Jhansi only if the supplier has submitted online Despatch Intimation.<br><br>The <b>following documents are necessary before entry of material at our Material Gate:</b>   |   |  |   |   |   |  |
|           | <table border="1"> <tr> <td>1</td> <td>GST Invoice <b>OR</b> Delivery Challan (as per rule 55) <b>OR</b> Bill of entry for imports <b>OR</b> Excise Duty Invoice for Petroleum supplies</td> </tr> <tr> <td>2</td> <td>Lorry Receipt (LR) <b>OR</b> Railway Receipt (RR) <b>OR</b> Door Delivery (Courier Docket..).</td> </tr> <tr> <td>3</td> <td>'Despatch Intimation' (Printout required).</td> </tr> </table>  | 1 | GST Invoice <b>OR</b> Delivery Challan (as per rule 55) <b>OR</b> Bill of entry for imports <b>OR</b> Excise Duty Invoice for Petroleum supplies | 2 | Lorry Receipt (LR) <b>OR</b> Railway Receipt (RR) <b>OR</b> Door Delivery (Courier Docket..). | 3 | 'Despatch Intimation' (Printout required). |
| 1         | GST Invoice <b>OR</b> Delivery Challan (as per rule 55) <b>OR</b> Bill of entry for imports <b>OR</b> Excise Duty Invoice for Petroleum supplies  |   |  |   |   |   |  |
| 2         | Lorry Receipt (LR) <b>OR</b> Railway Receipt (RR) <b>OR</b> Door Delivery (Courier Docket..).   |   |  |   |   |   |  |
| 3         | 'Despatch Intimation' (Printout required).  |   |  |   |   |   |  |



The following documents are additionally required for **SRV clearance** if they are called for in the Purchase Order (PO):

|   |   |
|---|---|
| 4 | Complete Test certificates/Inspection reports |
| 5 | Guarantee certificates                        |
| 6 | Any other document as called for              |

Following may be required for **SRV preparation** depending on the nature of material being supplied:

|   |                                     |
|---|-------------------------------------|
| 7 | Packing lists, wherever applicable. |
| 8 | Weighment slip.                     |

A cost of one percent of the transaction value ( not more than Rs 5000 per transaction but not less than Rs 500 per transaction ) shall be deducted from supplier bills in case supplier has failed to upload the despatch information on Supplier Information Portal

**E** Material despatched one month prior to the date of despatch shall not be permitted inside BHEL, unless there are instructions otherwise from BHEL. In all such cases, material will be allowed inside only if approved by Head MM

Material despatched 10 weeks after date of despatch shall not be permitted inside BHEL, unless there are instructions otherwise from BHEL. In all such cases, material will be allowed inside only if approved by Head MM

**17 Warranty , Corresponding Repairs / Replacement of Goods, and Deductions**

Goods shall comply with the specifications for material, workmanship and performance.

The warranty shall be for a period of 24 months from the date of receipt at BHEL, Jhansi

However, **wherever erection & commissioning also is in the scope of the bidder**, the warranty shall be for a period of 24 months from the date of supply or 18 months from the date of commissioning, whichever is later.

In case any other terms are to be specified for warranty, the same shall be specified in the specific enquiry

**A** Normally deviation shall not be accepted for the criteria of warranty period. The offers of bidders, who offer deviation to the warranty terms mentioned in the NIT, are liable to be rejected.

If the item supplied is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation or any mutually agreed period. The rejected goods shall be taken away by the Seller at his cost and replaced on Delivered Duty Paid (DDP) (FOR - BHEL Stores/ designated destination basis) within such period. In the event of the Seller's failure to comply, Purchaser may take action as appropriate, including Repair / Replenish rejected goods & disposal of rejections, at the risk & cost of the Seller.

In case the defects attributable to Seller are detected during processing of the goods at purchaser's/ his subcontractor's works, the Seller shall be responsible for free replacement/ repair of the goods as required by the purchaser.

**18 Evaluation and Loading Criteria:**

Evaluation of the tender shall be on the basis of delivered cost, i.e. 'total cost to BHEL' w.r.t the finalized technical scope and commercial conditions (after considering, inter alia, Customs Duty and CENVAT/ VAT/ CST/Service Tax/Entry Tax or any other tax as applicable). Exchange rate (TT selling rate of State Bank of India) applicable on the date of Part-I bid opening shall be considered for evaluation of foreign bids. If the relevant day happens to be a bank holiday in India, then the FOREX rate as on the previous bank working day shall be taken for evaluation.

Foreign suppliers shall ensure that the benefits as applicable under Free Trade Agreement (FTA) with Government of India are disclosed in the bid & relevant documents such as Certificate of Country of Origin, issued by the appropriate authority in the country of Export, is provided by the vendor along with dispatch documents. Bids shall be evaluated with such applicable benefits. In the event of Seller failing to provide appropriate documents for Purchaser to avail disclosed



JHS 2055A R03

## GENERAL TERMS AND CONDITIONS OF ENQUIRY

Page 10 of 12

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|           | <p>concessional duty benefits in India, the cost incurred owing to consequent delays, detention and demurrage thereof, will be to the Seller's account.</p> <p>To arrive at the Delivered Cost, the quoted price shall be suitably loaded, the details of which are mentioned in this annexure / special remarks of the enquiry. In case of any additional techno commercial deviations, for which the loading criterion is required to be framed after opening of techno commercial bid, such criteria shall be communicated to all qualified bidders before price bid opening.</p>   |
| <b>19</b> | <b>Non-Disclosure Agreement</b>  |
|           | <p>All Drawing and technical documents relating to the product or its manufacture submitted by one party to the other, prior or subsequent to the formation of contract, shall remain property of the submitting party. Drawing, technical documents or other technical information received by one party, shall not without the consent of the other party, be used for any other purpose than that, for which they were provided. Such technical information shall not without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party. Patterns supplied by BHEL will remain BHEL's property which shall be returned by the bidder on demand to BHEL. Bidder shall in no way share or use such intellectual property of BHEL to promote his own business with others. <u><i>BHEL reserves the right to claim damages from the bidder, or take appropriate penal action as deemed fit against the bidder, for any infringement of the provisions contained herein.</i></u></p>  |
| <b>20</b> | <b>RIGHT OF REJECTION /NON- PLACEMENT OF PO/ SHORTCLOSURE OF PO:</b> BHEL reserves the right to accept the offers in part or in full, or cancel the Tender enquiry without assigning any reason whatsoever / non placement of PO or contract / short closure of PO or contract.  |
| <b>21</b> | <b>Performance Bank Guarantee (PBG)/ Security Deposit (SD):</b>  |
| <b>A</b>  | Bank Guarantee wherever called for, shall be in the BHEL prescribed format. In case the order is to be placed in foreign currency, the BG must normally be in Indian Currency from the Consortium Banks of BHEL / as specified in the specific Enquiry   |
| <b>B</b>  | Wherever the contract is for supply of Goods processed on labour basis from BHEL supplied materials, the materials shall be issued against a suitable security, preferably Bank guarantee.   |
| <b>22</b> | <b>Benefits earmarked for Purchase from Micro &amp; Small Enterprises (MSEs) – Indigenous Purchase</b>   |
| <b>A</b>  | MSE suppliers who are registered by bodies like MSMED, NSIC & DIC specified by Ministry of Micro, Small and Medium Enterprises ( MoMSME) can avail the intended benefits only if they submit along with the offer, relevant documents including valid certificate as mentioned in " Format for Supplier MSME Status' on Supplier Information Portal of BHEL, Jhansi. In case the valid MSE registration of the bidder is already updated in SDC records of BHEL, Jhansi, it may not submit the details again. It is hence in the interest of the supplier that they validate the status of UAM regularly with BHEL, if they would like to avail intended benefits under MSME Act.  |
| <b>B</b>  | Tenders to MSE suppliers shall be issued free of cost & no EMD wherever called for will be insisted upon. Such MSE bidders shall submit along with bid, relevant documents including valid certificate. Date to be reckoned for determining the deemed validity will be the date of bid opening ( Part I in case of two part bid ). Non- submission of such document will lead to consideration of their bid, at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted Officer.   |
| <b>C</b>  | In tender, participating MSEs quoting price within price band of L1 ( on total cost to BHEL) +15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price <b>in a situation where L1 price is from someone other than a MSE</b> and such MSE shall be allowed to supply up to 20% of total tendered quantity. In case of more than one such MSE within price band of L1 ( on total cost to BHEL) +15%, the supply shall be shared proportionately ( to tendered quantity, as per their tender ranking of the bidders and also their SC/ST status). However if there are more than one MSE vendor at the same price level, then the quantity shall be distributed equally. A quantum of 4% out of 20% quantity, so earmarked, will be reserved for MSE's owned by SC / ST entrepreneurs who submit their bid with relevant documents. However, such distribution shall be subject to the tender requirement in terms of Customer approval of vendors, divisibility of quantity, etc. While all efforts shall be made to ensure compliance to the stated distribution, the decision of BHEL in distribution stated in this clause shall be binding on all bidders. |

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|              | <b>The above distribution is not applicable (a) where L1 vendor is MSE vendor and minimum 20% share is assured to the L1 bidder in the tender, or (b) where the MSE bidders qualified for distribution as per 'manner of splitting' clause in NIT already cater to 20% share in the tendered load.</b>  |
| <b>D</b>     | In case it comes to notice that the bidder is found responsible for misconducts like, having submitted fake/false/forged documents/ certificates, has misrepresented the facts, has wilfully suppressed the facts, has resorted to unethical/ illegal means, etc., action shall be initiated against such bidders as per the extant guidelines of the Company for suspension of business dealings.  |
| <b>23</b>    | <b>Benefits earmarked to suppliers for Purchase under 'MAKE IN INDIA'</b>   |
|              | As part of minimizing import content, Government of India, vide order no P-45021/2/2017-B.E.-II dated 15.06.2017, under the subject – Public Procurement ( Preference to Make in India ) -- has set the initiatives to encourage and promote indigenously manufactured goods within India and services provided by sources within India. .<br><br>In line with this, bidders who manufacture the goods and provide services within India ( otherwise referred as local suppliers ) are given purchase preference and are entitled to benefits in the tender   |
| <b>A</b>     | <b>Definitions</b>  |
| <b>(i)</b>   | <b>Local content</b> means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of item procured ( excluding net domestic indirect taxes ) minus the value of imported content in the item ( including all customs duties ) as a proportion of the total value , in percent . Presently, the minimum local content required is 50%. The nodal ministry may prescribe a higher or lower percentage in respect of any particular item and may also prescribe the manner of calculation of local content.   |
| <b>(ii)</b>  | <b>Local supplier</b> means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed   |
| <b>(iii)</b> | <b>Margin of Purchase Preference</b> means the maximum extent to which the price quoted by a local supplier may be above the L1 for the purpose of purchase preference. Presently the margin of Purchase preference is 20%.   |
| <b>B</b>     | <b>Conditions under which preference is given</b>   |
| <b>(i)</b>   | In procurement of goods in respect of which the Nodal ministry has communicated that there is sufficient local capacity and local competition, and where the estimated value of procurement is Rs 50 lakhs or less, only local suppliers shall be eligible. If the estimated value of procurement of such goods is more than Rs 50 lakhs, provisions of 23(B) (ii) and 23(B)(iii) shall apply.  |
| <b>(ii)</b>  | If the procurement of goods are not covered by 23(B)(i) and are divisible in nature, the following procedure shall be followed :  |
| <b>a</b>     | If L1 is a local supplier, the order for full quantity shall be awarded to local supplier   |
| <b>b</b>     | If L1 bid is not from a local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the local suppliers, shall be invited to match the L1 price for the remaining 50% quantity, subject to the local supplier's quoted price falling within the margin of purchase preference, and the order for that quantity shall be awarded to such local supplier subject to matching the L1 price. In case such lowest eligible local supplier fails to match the L1 price or accepts less than offered quantity, the next higher local supplier within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and the order shall be awarded accordingly. In case some quantity is still left uncovered on local suppliers, then such balance quantity may also be ordered on the L1 bidder. |
| <b>iii</b>   | If the procurement of goods are not covered by 23(B)(ii) and are not divisible in nature, and in procurement of services where the bid is evaluated on the price alone, the following procedure shall be followed :   |
| <b>a</b>     | If L1 is a local supplier, the order shall be awarded to local supplier   |
| <b>b</b>     | If L1 bid is not from a local supplier, then the lowest bidder among the local suppliers, will be invited to match the L1 price, subject to the local supplier's quoted price falling within the margin of purchase preference, and the order shall be awarded to such local supplier subject to matching the L1 price.<br><br>In case such lowest eligible local supplier fails to match the L1 price, the local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on, and the order shall be awarded accordingly. In case none of the local suppliers within the margin of preference match the L1 price, then the order may be awarded to the L1 bidder.  |
| <b>C</b>     | <b>Exemption of small purchases</b>   |
|              | Notwithstanding anything contained at clause 23B above, procurements where the estimated value of procurement is less than Rs 5 lakhs are exempt and purchase preference shall not be accorded in such cases.   |

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| <b>D</b>  | <b>Verification of local content</b>  |
| (i)       | The local supplier, at the time of tender, bidding or solicitation, shall be required to provide self certification that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made.  |
| (ii)      | In cases of procurement for a value in excess of Rs 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company ( in case of companies ) or from a practicing cost accountant or practicing chartered accountant ( in respect of suppliers other than companies ) giving the percentage of local content.  |
| (iii)     | False declarations shall be in breach of code of integrity and shall invite action as per guidelines for Suspension of Business dealings with Suppliers   |
| <b>E</b>  | In case of any disputes / clarifications, the extant guidelines of Government of India shall prevail.   |
| <b>24</b> | <b>Fraud Prevention</b>   |
|           | 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 <a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice  |
| <b>25</b> | <b>Settlement of Disputes &amp; Arbitration</b>   |
| <b>A</b>  | All questions/interpretations regarding subject matter of the Contract shall be decided by the Purchaser on the request of the Seller and the decision of the Purchaser shall be final.   |
| <b>B</b>  | In case of dispute, steps shall be taken by the parties to the contract to settle the same through negotiations.  |
| <b>C</b>  | In case, dispute is not settled in negotiations, it shall be referred to Conciliator appointed by the competent authority of the Purchaser.   |
| <b>D</b>  | In case dispute is not settled in conciliation proceedings, the same shall be referred to Arbitration as per Corporate Guidelines of the Purchaser and the arbitration proceeding shall be conducted as per provisions of the Arbitration and Conciliation Act, 1996 read with Corporate guideline as amended from time to time.  |
| <b>E</b>  | The Seller shall continue to perform the contract, pending settlement of dispute(s).  |
| <b>26</b> | <b>Applicable Laws and Jurisdiction of Courts</b>   |
|           | Indian laws both substantive and procedural, for the time being in force, including modifications thereto, shall govern the Contract including Arbitration proceedings. The competent Courts at Jhansi in the State of Uttar Pradesh, India shall have sole jurisdiction.   |
| <b>27</b> | <b>Conciliation</b>   |
|           | BHEL and bidder agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the terms and conditions of order, which the Parties are unable to settle mutually), arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators. |
|           | <b>Notes:</b>   |
|           | 1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.  |
|           | 2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.  |
|           | The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof. The details of Conciliations shall be governed by the BHEL Conciliation scheme 2018.  |
| <b>28</b> | <b>General</b>  |
|           | The Bidder shall keep a track of any changes by visiting the Supplier Information Portal of BHEL, Jhansi at <a href="https://www.bheljhs.co.in/apps/sip/index.php">https://www.bheljhs.co.in/apps/sip/index.php</a>   |