



**BHARAT HEAVY ELECTRICALS LIMITED**  
**HEEP HARIDWAR INDIA-PIN 249403**  
**FAX NO: 0091 1334 226462/223948**  
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**Tender No.: F/T237/2015/6442H**

**Due Date: 18.05.2016**

**Sub: BHEL-HEEP/OPEN-TENDER**

The Heavy Electricals Equipment Plant (HEEP) located in Haridwar, India is one of the major manufacturing plants of Bharat Heavy Electricals Ltd. The core business of HEEP includes design and manufacture of large steam and gas turbines, turbo generators and so on.

Sealed tenders with the Tender No. and opening date clearly super scribed on the cover are invited from the manufacturers (registered as well as unregistered) for the supply of the following items:-

Tender No	Item Description	Qty
F/T237/2015/6442H	HW1204029970 Copper Wire Annealed Tinned/Untinned Spec: AA12029 Rev: 05 Size: 0.9 Electro Tinned Grade: TND-UNTND-GR A-Wire	3692 Kg

The tender documents & Specification of item can be downloaded from our web site [www.bhel.com](http://www.bhel.com) or [www.bhelhwr.co.in](http://www.bhelhwr.co.in) or [www.tenders.gov.in](http://www.tenders.gov.in) submitted with requisite EMD.

**Only those vendors who fulfill the Minimum Qualifying Requirements (as per Annexure-III) will be considered for further technical evaluation.**

This notification shall be published in national newspaper. **The last date for downloading tender documents shall be 17.05.2016 & opening of tender shall be 18.05.2016.** Tenders will be received up to 01.45 P.M. on **18.05.2016** and opened on the same day at 2.00 P.M. in the Tender Room. **Please note that tender received after due date & time (01.45 PM on 18.05.2016) will not be opened.** BHEL will not be responsible for any type of postal / courier delay.

Intending vendors must submit the requisite EMD Rs. 40,000/- (Rupees Forty Thousand Only) for indigenous vendors (or equivalent amount in foreign currency for foreign vendors) in the form of pay order or bank draft while submitting the tender documents as detailed in "Instruction to Bidders", after downloading from this web site.

EMD is waived off for-

- Central/ State – PSUs/ Government departments
- As per government guidelines, MSE suppliers are exempted for submission of EMD (Valid Documentary proof against MSE must be submitted along with offer to avail the benefits).  
The vendors registered for item Copper Wire Annealed Tinned/Untinned as per AA12029 Rev: 05 with BHEL, Haridwar are only exempted from EMD.

**The total quantity may undergo change at the time of ordering.**

The details of each item with required delivery are given in **Annexure-IV (Details of Items)**

Please submit your Techno-Commercial offer only for the above requirement subject to our terms and conditions.

**IN ADDITION TO VENDORS MENTIONED ABOVE, OFFERS SHALL ALSO BE CONSIDERED ONLY THOSE VENDORS WHO WILL SUBMIT EMD. [PLEASE SUBMIT DRAFTS FOR EMD DRAWN IN FAVOUR OF BHARAT HEAVY ELECTRICALS LTD. HEEP, HARIDWAR IN ANOTHER ENVELOPE SUPERSCRIBED WITH BOLD LETTERS "EMD" at 2 PM on the due date in the presence of authorized representative of the bidders who may like to be present. The authorized representative should bring authority letter from their parent company (Manufacturer) for attending the bid opening.**

**KINDLY READ "INSTRUCTIONS TO BIDDERS." QUOTATION NOT IN ACCORDANCE WITH THE INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED.**

## **INSTRUCTIONS TO BIDDERS FOR OPEN TENDER**

### **DEFINITION**

**Registered Vendors** - Are those who are registered with BHEL, Haridwar for procurement of Copper Wire Annealed Tinned/Untinned.

**Un-registered Vendors** - Are those who are not registered with BHEL, Haridwar for procurement of Copper Wire Annealed Tinned/Untinned.

### **MINIMUM QUALIFICATION REQUIREMENT**

**Following is the mandatory requirement. Offer of Vendors not meeting these requirements will not be considered.**

➤ **Technical Requirements-**

**Pre-Qualification requirements**

1. Vendor shall have in-house facilities for manufacturing of annealed tinned copper wire. Vendor shall also furnish the details of manufacturing machines.
2. Vendor to have experience of successfully manufacturing and supply of tinned Cu-wire of 0.5-1.0 mm diameter with minimum 5000 m single length in last three years for two different customers. Vendor to furnish the copy of un-priced purchase orders and inspection/dispatch documents for the same.
3. Since the requirement of the wire is for thermal heat transfer, hence for testing 99.9% purity of copper, suitable testing/method in place of clause no -11 of Spec: AA12029 Rev: 05 is to be defined by the vendor. Vendor shall have the facility of tinning using suitable process. Details of the same process to be furnished.

➤ **Quality Requirements-**

1. Testing & certification shall be as per ordering specification except clause 11 of Spec: AA12029 Rev: 05.
2. As per point no-3 of above mentioned Technical Requirements, vendor to confirm to inform suitable testing/ method against clause 11 of Spec: AA12029 Rev: 05 & confirm to provide test certificate for the same.

**Note-** Technical as well as quality requirements is applicable for both registered as well as un-registered vendors.

**Vendors must fill up Annexure– III in confirmation to above Minimum Qualifying Requirements and quality requirement.**

**ESSENTIAL INSTRUCTIONS**

1. Only those bids will be opened which have been submitted with requisite EMD.
2. All un-registered vendors shall be approved by BHEL, if found suitable, on the basis of data furnished by them in Supplier Registration Form (SRF) Foreign Vendors or Indigenous Vendors. Vendor (s) shall not be considered for ordering if not approved by BHEL.
3. BHEL team may visit the vendor (s) works for verification of capability and capacity claimed in tender documents/offer (s).
4. The tender document must comprise of four envelopes:
  - i) Envelope I : EMD or NSIC Certificate for exemption of EMD.
  - ii) Envelope II : Pre- Qualifying Requirement & Supplier Registration Form.
  - iii) Envelope III : Techno -Commercial Bid.
  - iv) Envelope IV : Price Bid.

**It is essential that all the four envelopes comprising of the above information should be submitted on the due date otherwise the authenticity of tender date & time will be defeated. In view of the above, it is proposed that offer should comprise of the above four envelopes at the time of tender opening.**
5. The tenders shall be submitted in three parts
  - i. Part I - Techno -Commercial Bid,
  - ii. Part II - Price Bid
  - iii. Part III - Vendor Registration Form

as described below on or before the due date. Vendor Registration Form shall be submitted by unregistered vendors only.
6. **The Quotation should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored. In Case the quotation is submitted through agent, the quotation must accompany original authorization letter.**
7. Documents submitted with the offer/bid by the bidder shall be signed and stamped in each page by authorized representative of the bidder. In case the bid is submitted by FAX, the bidder shall simultaneously ensure submission of signed and stamped (in each page) original bid to BHEL. If the documents are received in soft form, the same should be transmitted through vendor's authorized e-mail followed by the signed and stamped copy of the same documents. Documents not signed and stamped in each page by the authorized signatory of the bidder, shall not be accepted and considered for evaluation of the bid.
8. Any corrections / amendments shall be properly & fully authenticated with signature. No overwriting is acceptable.
9. In case of ordering, manufacturing plan should be submitted for BHEL approval.
10. Part-I containing techno-Commercial bid and part-III containing Vendor Registration Form will be opened on the date and time specified in the tender notice in the presence of those tenders who wish to attend.
11. Part-II (Price Bids) along with supplementary price bids, if necessary, will be opened at a later date of only those bidders whose techno-commercial bid has been found acceptable.
12. Suitability of delivery shall be the important criteria for evaluation of techno commercial bid and the bids falling within the delivery period and meeting the last delivery requirement.
13. Currency exchange rate will be applicable on the date of opening of Part-I (Techno-commercial Bid) for evaluation purpose.
14. **Evaluation of Bid: - The bid shall be evaluated**
  - a. **Cost to BHEL basis. ( Basic Cost + Insurance + Transportation + Duty )**
  - b. **The loading, if any, on account of LD penalty, payment terms or any other cost determined at later stage, which shall be communicated to the vendor.**
  - c. **Evaluation of comparative statement will be done on item wise basis after combining DEEC & PI quantity and order will be placed accordingly.**
15. Tenders when finalized shall be in the name of the bidder only and change of name during tender evaluation (without certificate from registrar of company) and after submission of the tender is liable to make the offer ineligible for participation.
16. All test certificates / Guarantee certificates to be submitted in TRIPLICATE along with dispatch documents.
17. BHEL reserves the right to open the price bid (part-II) along with the opening of techno-commercial offer at its option and in that case vendor will be informed accordingly.
18. **BHEL reserves the right to go for reverse auction. Vendors are requested to give their best price. In case of failure of reverse auction the paper bid shall be processed. Bidder should clearly indicate their acceptance for reverse auctioning in Annexure- VI. The bids of those vendors who do not agree for reverse auction may not be considered for RA. The Terms & Condition for Reverse Auctioning are as per Annexure VI.**
19. Total weight--/Gross/Net in Kg & also package size essentially should be indicated if not exact then approximate.
20. BHEL will evaluate the technical bids against essential criteria/requirements. BHEL may seek clarifications, if required, from the qualified bidders only. These clarifications will be communicated to the

eligible vendors. **The offers of those bidders, who are unable to respond in specified time frame, are likely to be ignored.**

**Note: Please visit our site [www.bhelhwr.co.in](http://www.bhelhwr.co.in) for General Instructions and Standard Terms & Conditions (GISTC) for Tender Enquiries for Indian & Foreign Vendor. All the bidders/vendors must ensure compliance of these GISTC. GISTC can also be referred by login to B2B Portal for BHEL approved Vendors.**

**IN CASE YOU ARE NOT MAKING AN OFFER AGAINST THIS ENQUIRY, THEN PLEASE ARRANGE TO SEND A LETTER OF REGRET.**

**DETAILS OF COMPOSITION OF PART-I (TECHNO-COMMERCIAL BID), PART-II (PRICE BID) & PART-III (VENDOR REGISTRATION FORM)**

**PART-I (TECHNO-COMMERCIAL BID)** shall comprise of following documents:

- a. Confirmation to Minimum Qualification Requirement and Quality Requirement as per Annexure-III.
- b. Complete technical offer as per specification, drawings, technical requirement along with un-priced bid.
- c. Delivery schedule.
- d. Validity of offer to be indicated.
- e. **Annexure- II** - Compliance sheet for technical/commercial terms and conditions for two part tender.
- f. **Deviation with reference to specification, if any, should be clearly indicated on a separate sheet.**
- g. Details of activity outsourced.

**PART –II (Price Bid)**

- a. Price bid with prices to be submitted as part-II of the tender.
- b. Fabrication rates should remain firm till the execution of the order. Material prices will be based on PVC as per Annexure-I.
- c. **In case of foreign vendors, Please quote your rates with C&F Landing Port.**
- d. **In case of Indigenous vendor, prices may be quoted on FOR- Destination- Store-HEEP-BHEL basis.**
- e. **Prices are to be written in both Figures & Words. In case of any difference between the two, the figure written in words shall be considered for evaluation. No over writing in this is acceptable.**

**Part-III - Vendor Registration Form (SRF)**

**(SRF-Foreign Suppliers or SRF-Indian Suppliers)**

- a. **Supplier/Vendor Registration Form-** Go through online supplier registration portal <https://supplier.bhel.in/> after filling the online registration form send the copy of same along with your offer within due date.
- b. The SRF (as applicable) duly filled up will be assessed for manufacturing capability quality systems being followed, organizational soundness and financial worthiness. The same shall be submitted with Part-I (Techno-Commercial Bid) by un-registered vendor only with BHEL, HEEP, Haridwar.

## **MARKING OF ENVELOPE:**

- Each envelop is to be super scribed as “TENDER FOR “**COPPER WIRE ANNEALED TINNED / UNTINNED**” AGAINST TENDER NO. **F/T237/2015/6442H** DUE ON **18.05.2016**.
- Drafts for EMD to be kept in one envelop – Envelop –A. On the Top of the envelope, please write Draft No., Issuing Bank Details & Amount. Those vendors who are quoting for more than one tender must submit a statement in the envelopes of all those tenders giving details of all the tenders being quoted. However, the draft of each tender should be kept in individual tender envelop.
- Techno-Commercial - Part-I to be kept in another envelop – Envelop-B & to be marked as Techno-Commercial Offer.
- Vendor Registration Form - Part –III to be kept in another envelop – Envelop – C & to be marked as Vendor Registration Form.
- Price Bid – Part-II to be kept in another envelop – Envelop-D & to be marked as Price Bid.
- Envelop-A, Envelop-B, Envelop-C & Envelop-D are to be kept in one envelop super scribed as above

**Envelopes not marked as above are liable to be ignored and will not be opened.**

## Annexure-I

### PVC clause for indigenous vendor:-

For the purpose of evaluation the rates of M/s HCL for “Copper Cathode (Full)” for the month prior to enquiry date shall be considered. Proof of the same may also be enclosed.

The price variation for “Copper Wire Annealed Tinned/Untinned” shall be payable calculated based on the “Copper Cathode (Full)” rates for the month prior to the month of actual dispatch. In case there is any early/delay in supply of the annealed Tinned/Untinned copper wire by the supplier, lower of the rates (raw material rates) applicable for the month of the contractual delivery or actual delivery shall be applicable.

### PVC clause for foreign vendor:-

For the purpose of evaluation the rates of LME CSP for “Copper” for the month prior to enquiry date shall be considered. Proof of the same may also be enclosed.

For the purpose of evaluation basic price (excluded fabrication cost) will be calculated as follows:-

**Basic price = [(LME CSP price + premium) X Multiplication factor X Exchange rate] + Handling charges + Markup.**

LME CSP price of Copper Cathode (Full) in USD one month prior to the date of enquiry.

Premium = 120 USD

Multiplication factor = 1.0585

Exchange rate = Exchange rate of SBI TT selling of the same day of LME price will be considered. In case of holiday, next day price will be considered.

Handling charges = 3300 Rs.

Markup = 0 Rs.

The price variation for “Copper Wire Annealed Tinned/Untinned” shall be payable calculated based on the LME CSP for “Copper” as per above mentioned formula for the month prior to the month of actual dispatch. In case there is any early/delay in supply of the “Copper Wire Annealed Tinned/Untinned” by the supplier, lower of the rates (raw material rates) applicable for the month of the contractual delivery or actual delivery shall be applicable.

## ANNEXURE-II

### COMPLIANCE SHEET FOR TECHNICAL/COMMERCIAL TERMS AND CONDITIONS FOR TWO PART TENDER

**PLEASE FILL THIS ANNEXURE & ATTACH WITH YOUR TECHNO-COMMERCIAL BID.**

Offer must be sent in two separate sealed envelopes containing techno-commercial offer in one envelope marked "TECHNO-COMMERCIAL BID" and prices in second envelope marked "PRICE-BID". Both the envelopes must be contained in the main envelope. Tender name and due date to be marked on all the envelopes.

You are requested to kindly confirm /clarify the following:-

S. No.	Description	Vendor's Confirmation
1	Vendor to confirm that they meet each & every clause of our specifications/Drawings.	YES / NO
2	If "No" to serial number 1, vendor to specify each deviated clause & submit in a separate sheet.	
3	Vendor to list out on a separate sheet any activity which is outsourced. Please furnish details of out sourced vendor.	
4	Validity: confirm that validity of the offer shall be 90 days from the date of tender opening	YES / NO
5	Confirm that un-priced part of price bid is enclosed with technical commercial offer	YES / NO
6	Confirm delivery quoted as per enquiry	YES / NO
7	<b>For foreign Vendors-</b> Confirm that you have quoted your rates with C&F Landing Port. <b>For Indigenous Vendors-</b> Confirm that you have quoted your rates on FOR Destination basis.	YES / NO
8	Confirm that Loading Port has been mentioned.	YES / NO
9	Confirm that prices are based on "Price Variation Formula" as per Annexure-I.	YES / NO
10	<b>For foreign Vendors-</b> Confirm that payment term shall be "On collection basis through SBI/PNB Ranipur, Hardwar" (CAD). <b>For Indigenous Vendors-</b> Confirm that payment term shall be "100% payment after receipt and acceptance of material.	YES / NO
11	LD Penalty shall be applicable on total order value @0.5% per week or part thereof subject to maximum of 10% of the PO Value.	YES / NO
12	Confirm that all test certificates to be submitted as per BHEL specification. in TRIPLICATE along with despatch documents	YES / NO
13	Right of acceptance – BHEL reserves the right to reject any or all quotations without assigning any reasons thereof. BHEL also reserves the right to increase or decrease the tendered quantities. Vendors should be prepared to accept order for reduced quantities without any extra charges. Vendor should also be prepared for giving discount in case of increase in quantity.	YES / NO
14	Confirm specifically that material shall be supplied as per tender documents.	YES / NO
15	Ink signed order acceptance shall be furnished within 15 days of order placement.	YES / NO
16	Confirm if there is Indian agency commission.	YES / NO
17	Please confirm to participate in Reverse Auction.	YES / NO
18	Confirm acceptance of Risk Purchase clause.	YES / NO
19	Confirm to send original ink signed copy of offer, if offer has been sent through email or FAX or photocopy has been submitted.	YES / NO

## ANNEXURE-III

### Minimum Qualification Requirement for Copper Wire Annealed Tinned / Untinned

Following is the mandatory requirement. Offer of Vendors not meeting these requirements will not be considered.

➤ **Technical Requirements-**

Sl. No.	Technical Requirement	Vendor's confirmation (Y/N)
01	Vendor shall have in-house facilities for manufacturing of annealed tinned copper wire. Vendor shall also furnish the details of manufacturing machines.	
02	Vendor to have experience of successfully manufacturing and supply of tinned Cu-wire of 0.5-1.0 mm diameter with minimum 5000 m single length in last three years for two different customers. Vendor to furnish the copy of un-priced purchase orders and inspection/dispatch documents for the same.	
03	Since the requirement of the wire is for thermal heat transfer, hence for testing 99.9% purity of copper, suitable testing/method in place of clause no -11 of Spec: AA12029 Rev: 05 is to be defined by the vendor. Vendor shall have the facility of tinning using suitable process. Details of the same process to be furnished.	

*Note- This is applicable for both registered as well as un-registered vendors.*

➤ **Quality Requirements-**

Sl. No.	Quality Requirement	Vendor's confirmation (Y/N)
01	Testing & certification shall be as per ordering specification except clause 11 of Spec: AA12029 Rev: 05.	
02	As per point no-3 of above mentioned Technical Requirements, vendor to confirm to inform suitable testing/ method against clause 11 of Spec: AA12029 Rev: 05 & confirm to provide test certificate for the same.	

*Note- This is applicable for both registered as well as un-registered vendors.*

**Signature with stamp**

**Name:**

**Name of Firm:**

**Designation:**

**Date:**

## ANNEXURE-IV

### (Item Details and Delivery Schedule)

Tender No.	Material Code	Description	Specification	Qty. (Kgs)	Delivery
F/T237/2015/6442H	HW1204029970	Copper Wire Annealed Tinned/Untinned Size: 0.9 Electro Tinned Grade: TND-UNTND- GR A-Wire	AA12029 Rev: 05	3692	15/08/2016

NOTE: THE QUANTITY INDICATED ABOVE CAN BE INCREASED/ DECREASED.

**ANNEXURE-V**

**(Specification AA12029 Rev: 05)**



## CORPORATE PURCHASING SPECIFICATION

AA 12029

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### COPPER WIRE - ANNEALED (TINNED / UNTINNED)

#### 1.0 GENERAL:

This specification governs the quality requirements of high conductivity copper wire, tinned / untinned in the annealed condition.

#### 2.0 APPLICATION:

Used for general electrical engineering purpose.

#### 3.0 CONDITION OF DELIVERY:

Annealed Tinned / Untinned.

The wire shall be supplied in coils or in straight length as specified in BHEL order.

#### 4.0 COMPLIANCE WITH NATIONAL STANDARDS:

The material shall comply with the requirements of the following national standard and also meet the requirements of this specification.

IS: 9567 - 2001 : Tin or Tin Lead Coated Copper Wire  
Condition: Annealed.

#### 5.0 MATERIALS AND CONSTRUCTIONS:

##### 5.1 Material:

The material shall be supplied to the dimensions specified in the purchase order. Standard sizes shall be taken from table of IS 9567.

##### 5.2 Tolerances:

The finished coated wire diameter shall have a tolerance of +3% -1% on the nominal specified diameter. The preferred nominal diameters of the coated wire are as per Table 1 of IS 9567.

#### 6.0 MANUFACTURE:

The material shall be manufactured from high conductivity annealed copper of ETP grade conforms to IS: 191.

The conductor shall be manufactured from ETP grade copper conforming to BHEL specification AA12024: Electrolytic Tough Pitch Copper Wire / Bars / Ingots / Continuously cast wire rods.

**NOTE:** It is preferable to manufacture conductor from continuously cast copper rods provided all other parameters and conditions remain same.

Whenever specified, tinning shall be done by electro - tinning process to a thickness of 3 microns approximately. The tinning material shall conform to grade Sn99.75 of IS: 26.

#### Revisions :

Cl 20.2.4 of MOM of MRC-NFCW+HE

#### APPROVED :

INTERPLANT MATERIAL RATIONALISATION  
COMMITTEE-MRC (NFCW+HE)

Rev. No. 05

Amd.No.

Reaffirmed

Prepared  
BHOPAL

Issued  
Corp. R&D

Dt. of 1st Issue

Dt: 15.02.2006

Dt :

Year :

September, 1989

**6.1 Joints:**

The wire supplied shall be in continuous length and free from joints. If the joints are unavoidable, they shall be so made that the wires at the joints are identical in dimensions, softness and strength with the rest of the wire.

**7.0 FREEDOM FROM DEFECTS:**

The material shall be clean, bright, smooth, uniform in diameter and free from fins, spills, scaling blisters, cracks and other harmful defects.

The coating when called for shall be coated with a smooth, uniform layer of tin, free from deleterious impurities.

**8.0 CHEMICAL COMPOSITION:**

The analysis of copper when analysed in accordance with IS: 440 or any other conventional / instrumental methods shall be as follows:

Element	%, min	%, max.
Copper & Silver	99.90	---
Bismuth*	--	0.001
Lead*	--	0.005
Total of all impurities (Excluding silver & oxygen)	--	0.030

\* These elements need not be determined when the material supplied conforms to mechanical and electrical properties specified in the specification. However, the supplier shall ensure that the composition of the material lies within the limits specified above.

**9.0 TEST SAMPLES:**

One sample per size per melt per consignment of 3 tones or part thereof shall be taken for chemical, mechanical and electrical tests.

The samples shall be cut off cold and shall receive no further treatment before being tested.

**10.0 MECHANICAL PROPERTIES:****10.1 Measurement of Diameter:**

The measurement of coated wire diameter shall be made with an accuracy better than 0.001mm.

**10.2 Elongation and Breaking Strength Test:**

The test shall be carried out after the test specimens have been conditioned at a temperature of  $25 \pm 2^\circ\text{C}$  for at least 10 hours. The test shall be started within 5 minutes after removing the specimens from the conditioning atmosphere.



When tested in accordance with clause 6.4.2 of IS 9567, the elongation & Breaking strength of the material shall be as per the table given below:

Nominal Diameter of Coated Wire mm	Elongation, min percent	Breaking Strength min N/mm <sup>2</sup>
Up to and including 0.25	10	200
Above 0.25 and up to and including 0.5	15	200
Above 0.5	20	200

### 10.3 Bend Test:

When tested as per clause 6.4.3 of IS: 9567 the wire shall satisfy the following conditions:

Nominal Diameter (Coated), mm	No of Bends before Failure, min.
0.2 to 0.3 (both inclusive)	4
0.4 to 0.5 (-do-)	6
0.6 to 0.7 (-do-)	8
0.8 to 1.2 (-do-)	10
1.6 to 2.0 (-do-)	12

### 10.4 Solderability Test:

The coated wire shall satisfy the requirements of solderability test when tested in accordance with IS 9000 (Part 18/Sec 1 to 3), both before and after accelerated ageing. Accelerated ageing shall be carried out as follows:

- The wire shall be subjected to dry heat for 16 hours at 155°C [see IS 9000 (Part3 /Sec1 to 5)], and
- On removal from the dry heat oven, the wire samples shall be allowed to cool to room temperature. They are then subjected to solderability testing.

10.4.1 If solder globule method is used, the coated wire shall satisfy the solderability requirements as given below:

<u>Condition of Coated Wire</u>	<u>Soldering Time (Seconds), max</u>
As received	1.5
After accelerated ageing	2.5



**10.4.2** The coated wire shall also satisfy the requirements of dewetting test in accordance with IS 9000 (Part 18/Sec 1 to 3).

**10.5 Continuity of Coating Test:**

The coated wire shall meet the requirements of continuity of coating when tested by the hydrochloric acid - sodium polysulfide test described in Annexure C of IS: 9567.

**10.6 Adherence of Coating Test**

The wire shall meet the requirements of adherence of coating, when tested by the wrapping and immersion test described in Annexure D of IS 9567.

**11.0. ELECTRICAL RESISTIVITY (As received)**

When measured in accordance with IS: 3635, the electrical resistivity at 20°C shall not be greater than 0.017241 ohm - mm<sup>2</sup> / meter, which is equivalent to an electrical conductivity of 100% minimum of IACS standard.

(Refer table 2 of IS 9567 for temperature correction factors.)

**NOTE:** Permitted increase in resistivity for tinned wire shall be 2% up to 1.0mm and 1% for 1.0mm diameter and above.

**12.0 INSPECTION AT SUPPLIER'S WORKS:**

Whenever specified tests and inspection are to be conducted in the presence of BHEL's representative. The supplier shall offer BHEL's representative all reasonable facilities, without charge to satisfy the latter that the material is being furnished in accordance with this specification. The supplier shall prepare and provide necessary test specimens for testing to be carried out at his premises. If facilities are not available at his works, the supplier shall make necessary arrangements for carrying out the prescribed test elsewhere. The supplier shall notify BHEL in advance about the readiness of the material for inspection and testing.

BHEL reserves the right to test the material at BHEL's works and the final acceptance of the material shall be based on these tests results.

**13.0 TEST CERTIFICATES:**

Unless otherwise specified on order, three copies of test certificates shall be supplied with each consignment.

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

The test certificate shall bear the following information:

AA 12029, Rev. No. 05 : Copper Wire - Annealed (Tinned / Untinned)

BHEL order No.

Manufacturer's / Supplier's Name

Lot / Identification / Batch / Melt No.

Sizes and quantity supplied

Results of dimensional inspection, Chemical analysis, Mechanical and electrical tests as per this specification.

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CORPORATE PURCHASING SPECIFICATION



**14.0 PACKING AND MARKING:**

Copper wire should be rolled over on wooden wheels and gross weight of each reel should not exceed 20kg. The wood shall be strong to take the load of wire to avoid damage during transit and shop handling.

Each package shall be legibly marked or labeled with the following information.

BHEL order No.

AA 12029: Copper Wire - Annealed (Tinned / Untinned)

Manufacturer's / Supplier's Name

Lot / Identification / Batch / Melt No.

Sizes and Quantity Supplied.

**15.0 REFERRED STANDARD:**

- (1) IS: 26      (2) IS: 191      (3) IS: 440      (4) IS: 3635      (5) IS: 9000  
(6) IS: 9567      (7) AA 12024

## ANNEXURE-VI

### TERMS AND CONDITIONS OF REVERSE AUCTIONING

Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to “REVERSE AUCTION PROCEDURE” i.e., **ON LINE BIDDING (THROUGH A SERVICE PROVIDER)**. The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non-submission of „online sealed bid“ by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Compliance form (Annexure VII) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (**Annexure VIII**) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL’s standard practice.
12. Bidders shall be required to read the “Terms and Conditions” section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the „Business Rules of Reverse Auction“, which will be communicated before the Reverse Auction.

13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action *as per extant BHEL guidelines*, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- 15. In case BHEL decides to go for reverse auction, the H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.**

## ANNEXURE-VII

### Process Compliance Form

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

To  
Name & Address of Service Provider  
For Reverse Auction (Will be informed  
Later)

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

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the RFQ document for {Items} against BHEL enquiry/ RFQ no. **F/T237/2015/6442H**.

This letter is to confirm that:

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

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

With regards

Signature with company seal

Name –  
Company / Organization  
Designation within Company / Organization  
Address of Company / Organization

- Sign this document and Fax it to Service provider of Reverse Auction at 24 Hrs prior to start of the Event.
- Attach a signed copy of the RFQ document along with the Agreement Form/ Process Compliance form and send to Service provider of Reverse Auction.

## ANNEXURE-VIII

### RA price confirmation and breakup

To

Name & Address of Service Provider  
For Reverse Auction (Will be informed  
Later)

CC: M/s BHEL  
Heavy Electricals Equipment Plant, Haridwar

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

Dear Sir,

We confirm that we have quoted.

**Rs. {\_\_\_\_\_} for item covered under tender enquiry No. NIT/F/T237/2015/6442H.**

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

as our final landed prices as quoted during the Reverse Auction conducted today  
{date} which will be valid for a period of 60 days.

The price break-up including that of line items is as given below.

Total

-Rs.

=====  
=====

Thanking you and looking forward to the valuable order from BHEL.

Yours sincerely,

For \_\_\_\_\_

**Name: Company:**

**Date:**

**Seal:**

## ANNEXURE-IX

### Certificate by Chartered Accountant on letter head

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

Further verified from the Books of Accounts that the investment of the company as  
on date .....as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722(E) dated October 5, 2006:  
Rs.....Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED act, 2006:  
Rs.....Lacs

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

The above investment of Rs .....Lacs is within permissible limit of Rs..... Lacs for  
.....micro / small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro / Small) (**Strike off whichever is not applicable**) and the date of graduation of such enterprises from its original category is .....  
(dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprises from  
its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification  
dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name-

Membership Number-

Seal of Chartered Accountant