

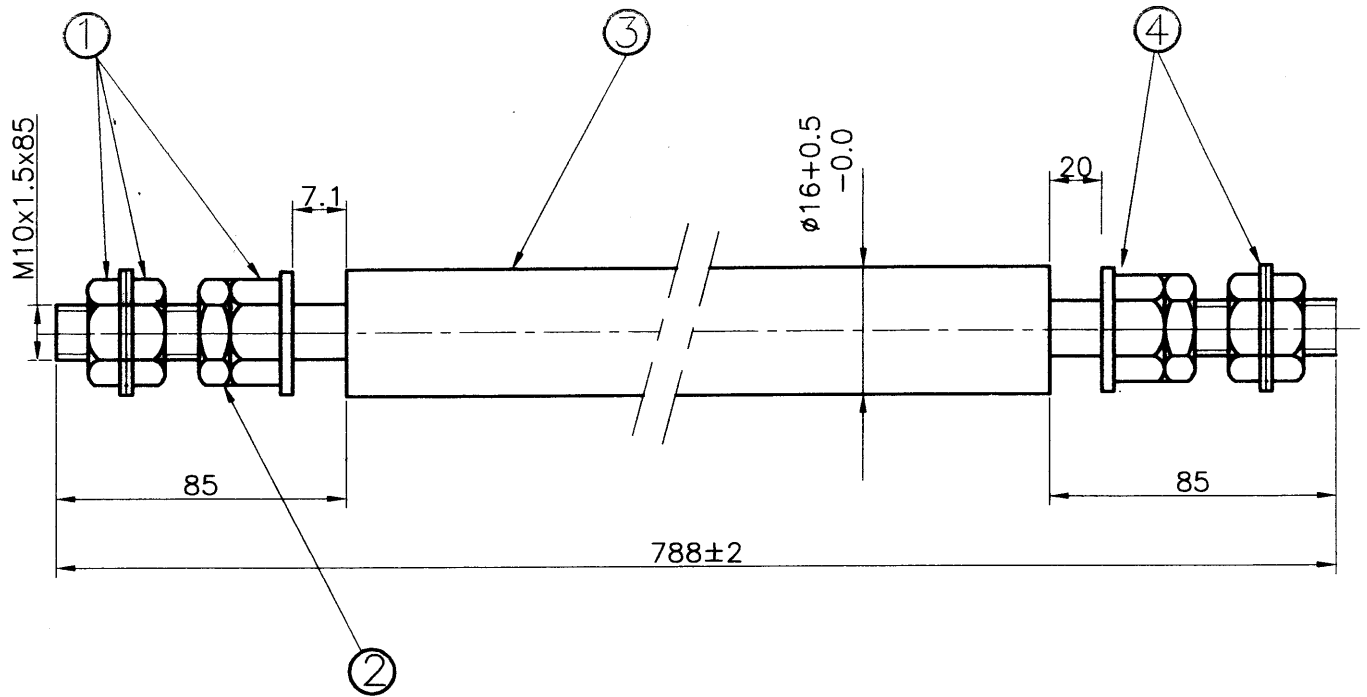
**ITEM: SUPPLY OF CONDUCTOR ROD & MS PLATES****Drawings, Technical PQR & QAP: AS ATTACHED****Quantity: As per attached BOQ****BILL OF MATERIAL (BOM):**

| Sr. No. | BHEL Item Code | Description of Item/Specification          | Quantity | UOM | Technical PQR & Drawings |
|---------|----------------|--|----------|-----|--------------------------|
| 1       | 124382         | COND'R ROD-G-(WASHER & NUT) 49820519923/01 | 105      | Nos | AS ATTACHED              |
| 2       | 122502         | MS PLATE, DRG 4 982 05 19922 REV 00 (G)    | 210      | Nos |                          |

- Bidder to provide signed & Sealed GEM BID, Technical PQR, Technical specification & Annexure No. **A/12303801/28.02.2024** with their offer.
- To get MSE preference, bidder to choose MSE purchase preference on GEM portal during offer submission otherwise purchase preference shall not be applicable.**
- To get MII preference, bidder to choose MII purchase preference on GEM portal and bidder to submit signed local content declaration otherwise purchase preference shall not be applicable.**
- Item shall be manufactured as per attached drawings.
- Delivery Schedule: Material shall be supplied to BHEL SBD MP Stores, Bangalore within 30 days from the date of PO.
- Delivery location: BHEL SBD MP Stores Bangalore-560012 as per GeM consignee.
- Price basis: Price shall be firm till completion of the contract. No PVC is applicable. F.O.R. Destination basis inclusive of packing, forwarding & freight charges, testing (IF ANY), & insurance charges.
- Payment terms: Hundred Percent (100%) of basic price of the material supplied as per PO, along with 100% taxes & duties (as applicable) shall be payable on pro-rata as per following manner
  - 45 days for Micro & Small Enterprises (MSEs)
  - 60 days for Medium Enterprises
  - 90 days for Non-MSME
 from the date of receipt of goods at BHEL SBD and receipt of complete documents at BHEL SBD as specified in Clause No. 9 below subject to acceptance of materials. [i.e. date of acceptance of material or date of submission of complete set of documents (whichever is later) shall be considered for reckoning the due date of payment.]
- Documents to be Submitted by Vendor for payment:
  - Original GST compliant invoice. (Original for Buyer copy)
  - Copy of LR/ Delivery Challan for local supplier in place of LR
- Invoice to be made as per the prevailing GST format only. TDS Deductions applicable as per GST Law & TDS certificate shall be issued by BHEL in line with the latest amendment in GST Law.
- LD/Penalty: As per GeM general T&C.
- Guarantee period: As per GeM general T&C. Further, supplied material should be durable and vendor should guarantee for its durability for minimum three years in use.
- Technical PQR- requirement i.e. Years of Past Experience of 01 year as per technical PQR.
- Past Experience shall be supply of 48% of bid quantity.
- Minimum Average Annual Turnover of the Bidders: Not applicable.
- Inspection, sample and Quality Clearance: As per QAP.

## UNPRICED BOQ FOR 12303801

| Item Number | Item Code | Item Description                         | Quantity | UOM | [PI mention only<br>QUOTED or NOT QUOTED] | Applicable<br>GST % | HSN Code |
|-------------|-----------|--|----------|-----|---|---------------------|----------|
| 1           | 124382    | COND'R ROD-G-(WASHER &NUT)49820519923/01 | 105      | EA  |   |                     |          |
| 2           | 122502    | MS PLATE , DRG 4 982 05 19922 REV 00 (G) | 210      | EA  |   |                     |          |

**NOTE:**

1. ALL DIMENSIONS ARE AFTER HOT DIP GALVANIZE
2. TO BE GALVANIZED AFTER ALL MACHINING AND THREADING
3. SHARP CORNERS TO BE ROUNDED OFF BY R2
4. MATERAIL: MILD STEEL Gr. 'A' OF IS: 2062-1992 FOR CONDUCTOR ROD
5. NUTS TO BE CONFORM TO IS:1364(PART3)-2002.
6. LOCK NUT TO BE CONFORM TO IS:1364(PART4)-2003

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| REV                        | DATE     | ALTERED | 4 | PLANE WASHER(M10) | MILD STEEL  | -          | 6           |
|----------------------------|----------|---------|---|-------------------|-------------|------------|-------------|
| 01                         | 13.11.09 | CHECKED | 3 | ROD               | MILD STEEL  | 1.1        | 1           |
| 1. QTY. OF ITEM No 1 WAS 2 |          |         |   | 2                 | LOCK NUT    | MILD STEEL | - 2         |
| 2. QTY. OF ITEM No 2 WAS 6 |          |         |   | 1                 | NUT(M10)    | MILD STEEL | - 6         |
| REF. PH. NO: 5333          |          |         |   | ITEM              | DESCRIPTION | MATERIAL   | UNIT WT QTY |



**BHARAT HEAVY ELECTRICALS LTD;**  
ELECTROPORCELAINS DIVISION  
BANGALORE 560 012

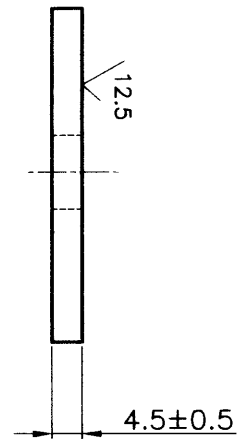
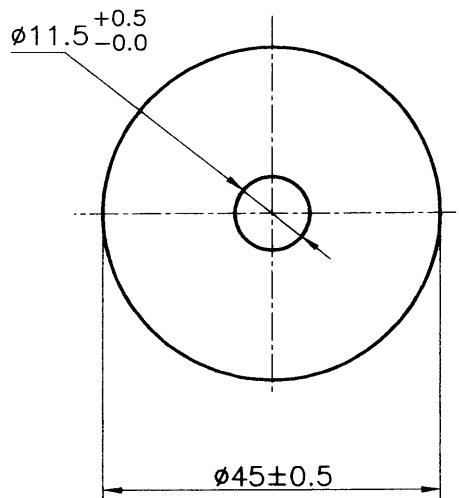
|      | NAME   | SIGN               | DATE   |
|------|--------|--------------------|--------|
| DRN  | SUBHAN | <i>[Signature]</i> | 5/6/06 |
| CHD  | S.S.P  | <i>[Signature]</i> | 5/6/06 |
| APPD | S.S.P  | <i>[Signature]</i> | 5/6/06 |

| DEPT | GRADE OF TOL. DIM. | SCALE | WEIGHT (kg) | REF. TO ASSY DRG. | ITEM No. | No. OF ITEMS |
|------|--------------------|-------|-------------|-------------------|----------|--------------|
| CODE | C/M/F              | N.T.S | (Approx)    |                   |          |              |

TITLE  
**CONDUCTOR ROD**  
FOR WALL BUSHING INSULATOR

| CARD CODE | DRAWING No.           | REV |
|-----------|-----------------------|-----|
|           | <b>4 982 05 19923</b> | 01  |
| SUB No.   | No. OF SHEETS         |     |



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**NOTE:**

1. ALL DIMENSIONS ARE AFTER HOT DIP GALVANIZE
2. TO BE GALVANIZED AFTER ALL MACHINING
3. SHARP CORNERS TO BE ROUNDED OFF BY R2
4. MATERAIL: MILD STEEL Gr. 'A' OF IS: 2062-1992

*Handwritten signature/initials*

|               |                     |   |   |                |                                 |                   |                       |                |           |
|---------------|---------------------|---|---|----------------|---------------------------------|-------------------|-----------------------|----------------|-----------|
| SIGN AND DATE | PD<br>REF. DRG. No. |  <b>BHARAT HEAVY ELECTRICALS LTD;</b><br>ELECTROPORCELAINS DIVISION<br>BANGALORE 560 012 |   | NAME           | SIGN                            | DATE              |                       |                |           |
|               |                     |   |   | DRN            | SUBHAN                          | <i>Signature</i>  | 05.06.06              |                |           |
| INVENTORY No. | DEPT<br>CODE        | GRADE OF<br>TOL. DIM.<br>C/M/F  |  | SCALE<br>N.T.S | WEIGHT (kg)<br>0.06<br>(Approx) | REF. TO ASSY DRG. | ITEM<br>No.           | No.OF<br>ITEMS |           |
|               |                     |   |   |                |                                 |                   |                       |                |           |
| TITLE         | CARD<br>CODE        | <b>MS PLATE<br/>FOR WALL BUSHING INSULATOR</b>  |   |                |                                 |                   | DRAWING No.           |                | REV       |
|               |                     |   |   |                |                                 |                   | <b>4 982 05 19922</b> |                | <b>00</b> |
| SUB No.       |                     | No.OF SHEETS  |   |                |                                 |                   |                       |                |           |



## PRE-QUALIFICATION REQUIREMENTS

Ref. No. : SBD/Ins. Prodn /PQR-MP

Dt : 24/01/24

ITEM : CONDUCTOR ROD & MS Plate for Porcelain Insulators


P.R.No. 12303081


P.R. Total Qty : 315 Nos.

| S. No. | BHEL qualification requirement  | Documents Required   |
|--------|---|--|
|        | <b>I. PRE QUALIFICATION CRITERIA</b>  |  |
| 1      | Vendor must be a manufacturer and doing business of supplying <b><u>Fabricated components</u></b> preferably to Insulator Manufacturers.<br>Vendor should have supplied <b>150 Nos.</b> of similar galvanized components during the last 12 months. | Submitted / Not submitted (Vendor should provide documentary evidence by way of list of P.O., Invoice) |
| 2      | Material supplied should be durable and vendor should guarantee for its durability for minimum three years in use.  | Acceptable / Not acceptable  |
| 3      | Vendor should accept for pre despatch inspection of material as per BHEL drawings.  | Vendor to confirm Acceptable / Not acceptable  |

Note: Vendors to indicate clearly for acceptance or non-acceptance against each point. Technical bid can be processed further only when points mentioned above are responded and required documents are submitted.

  
**MANOJ KUMAR**  
Sr. Mgr/Ins.Production

| <br>BHEL-SBD  |                 | BHARAT HEAVY ELECTRICALS LIMITED<br>SOLAR BUSINESS DIVISION<br>PROF.C.N.R RAO CIRCLE, IISc POST<br>MALLESHWARAM, BENGALURU-560012 |       |               | STANDARD QUALITY ASSURANCE PLAN   |   |                                     | QP NO.: EPD_QP_IP_2022-23_0003<br>REV. NO.: 00<br>DATE: 28.06.2022<br>PAGE 1 OF 2 |     |  |     |  |
|---|-----------------|---|-------|---------------|---|---|-------------------------------------|---|-----|--|-----|--|
|   |                 |   |       |               | ITEM: CONDUCTOR ROD<br>49820517423 REV01, 49820509223 REV02,<br>49821013023 REV01 |   |                                     |   |     |  |     |  |
| SL. NO  | ITEM/ COMPONENT | CHARACTERISTICS   | CLASS | TYPE OF CHECK | QUANTUM OF CHECK  | REFERENCE DOCUMENT  | ACCEPTANCE NORMS                    | FORMAT OF RECORD  |     | AGENCY   |     | REMARKS  |
|   |                 |   |       |               |   |   |                                     |   | D * | M  | B   |  |
| 1.  | 2.              | 3.  | 4.    | 5.            | 6.  | 7.  | 8.                                  | 9.  |     | **   | 10. | 11.  |
| A INSPECTION BY SUPPLIER AT THEIR WORKS   |                 |   |       |               |   |   |                                     |   |     |  |     |  |
| A.1   | Conductor Rod   | Raw Material TC (Heat No, Chemical Composition, Mechanical Etc.)  | Major | Documentation | 100%  | IS 2062:2011, BHEL Drg./BHEL Spec   | IS 2062:2011, BHEL Drg./BHEL Spec   | Supplier TC   | ✓   | V  | V   |  |
| A.2   |                 | Visual  | Major | Physical      | 100%  |   |                                     | Inspection Report   | ✓   | P  | V   |  |
| A.3   |                 | Gauge Inspection (as applicable)  | Major | Physical      | 100%  |   |                                     | Inspection Report   | ✓   | P  | V   |  |
| A.4   |                 | Dimensions  | Major | Physical      | 10 per 1000 & part thereof  |   |                                     | Inspection Report   | ✓   | P  | V   |  |
| A.5   |                 | Mass/ Thickness of Zinc coating by Elcometer  | Major | Physical      | Min 3 per 1000 & part thereof   | IS 4759:1996, BHEL Spec./ BHEL Drg.   | IS 4759:1996, BHEL Spec./ BHEL Drg. | Inspection Report   | ✓   | P  | V   | 610 g/m <sup>2</sup> Unless mentioned in BHEL Drg./ Spec/BHEL PO |
| A.6   |                 | Purity of Zinc Ingot used for Galvanizing   | Major | Chemical      | One sample per Ingot Lot  | IS 209:1992   | % Zinc ≥ 99.5                       | Manufacturer Test Certificate & Third party Lab Test report                       | ✓   | V  | V   | Vendor to give COC for Manufacturer TC for usage in BHEL PO      |
| A.7   |                 | Adhesion Test   | Major | Mechanical    | Min 5 per 5000 & part thereof   | IS 2629 : 1985/BHEL Spec./ BHEL Drg.  | No peel off                         | Inspection Report   | ✓   | P  | V   |  |
| B PRE DISPATCH INSPECTION AT VENDORS WORKS/ INSPECTION AT BHEL WORKS  |                 |   |       |               |   |   |                                     |   |     |  |     |  |
| B.1   | Conductor Rod   | Visual  | Major | Physical      | IS:2500 Ptl AQL 0.65%   | IS 4759:1996, BHEL Drg./BHEL Spec   | IS 4759:1996, BHEL Drg./BHEL Spec   | Inspection Report   | -   | P / -  | W/P |  |
| B.2   |                 | Gauge Inspection (as applicable)  | Major | Physical      | IS:2500 Ptl AQL 0.65%   | IS 4759:1996, BHEL Drg./BHEL Spec   | IS 4759:1996, BHEL Drg./BHEL Spec   | Inspection Report   | -   | P / -  | W/P |  |
| B.3   |                 | Dimensions  | Major | Physical      | 2 per 1000 & part thereof   | IS 4759:1996, BHEL Drg./BHEL Spec   | IS 4759:1996, BHEL Drg./BHEL Spec   | Inspection Report   | -   | P / -  | W/P |  |
| <b>LEGEND: *D:</b> RECORDS, IDENTIFIED WITH "TICK" ( ✓ ) SHALL BE ESSENTIALLY INCLUDED BY VENDOR IN QA DOCUMENTATION.<br><b>** M:</b> MANUFACTURER/SUB-VENDOR, <b>B:</b> BHEL/BHEL NOMINATED INSPECTION AGENCY<br><b>P:</b> PERFORM <b>W:</b> WITNESS AND <b>V:</b> VERIFICATION. |                 |   |       |               |   |   |                                     |   |     |  |     |  |
| RAMANNA DHANANJAYA<br>PREPARED BY:<br>R DHANANJAYA  |                 |   |       |               |   | Digitally signed by aditya kumar mourya<br>DN: cn=R Chaudhary, o=BHEL, ou=SBD, email=rcd@bhel.in, c=IN<br>Date: 2022.06.28 17:01:21 +05'30' |                                     | aditya kumar mourya<br>REVIEWED BY:<br>ADITYA KUMAR MOURYA                        |     | R Chaudhary<br>APPROVED BY:<br>RAJNISH CHAUDHARY |     |  |

| <br>BHBL-SBD |                    | BHARAT HEAVY ELECTRICALS LIMITED<br>SOLAR BUSINESS DIVISION<br>PROF.C.N.R RAO CIRCLE, IISc POST<br>MALLESHWARAM, BENGALURU-560012 |       |                  |                               | STANDARD QUALITY ASSURANCE PLAN  |                                     | QP NO.: EPD_QP_IP_2022-23_0003<br>REV. NO.: 00<br>DATE: 28.06.2022<br>PAGE 2 OF 2 |        |        |     |   |
|--|--------------------|---|-------|------------------|-------------------------------|--|-------------------------------------|---|--------|--------|-----|---|
|  |                    |   |       |                  |                               | ITEM: CONDUCTOR ROD<br>49820517423 REV01,49820509223 REV02,<br>49821013023 REV01 |                                     |   |        |        |     |   |
| SL.<br>NO  | ITEM/<br>COMPONENT | CHARACTERISTICS   | CLASS | TYPE OF<br>CHECK | QUANTUM<br>OF CHECK           | REFERENCE<br>DOCUMENT  | ACCEPTANCE<br>NORMS                 | FORMAT OF<br>RECORD   |        | AGENCY |     | REMARKS   |
|  |                    |   |       |                  |                               |  |                                     |   |        | M      | B   |   |
| 1.   | 2.                 | 3.  | 4.    | 5.               | 6.                            | 7.   | 8.                                  | 9.  | D<br>* | **     | 10. | 11.   |
| B.4  |                    | Mass/ Thickness of Zinc coating by Elcometer  | Major | Physical         | Min 3 per 1000 & part thereof | IS 4759:1996, BHEL Spec./ BHEL Drg.  | IS 4759:1996, BHEL Spec./ BHEL Drg. | Inspection Report   | -      | P / -  | W/P | 610 g/m <sup>2</sup><br>Unless mentioned in BHEL Drg./BHEL Spec/BHEL PO |
| B.5  |                    | Adhesion Test   | Major | Mechanical       | Min 5 per 5000 & part thereof | IS 2629 : 1985/BHEL Spec./ BHEL Drg.   | No peel off                         | Inspection Report   | -      | P / -  | W/P |   |

**Notes:**

- Material supplied shall be in line with BHEL Purchase Order, Technical Specification, Approved Drawings, applicable Standard References, or any other document/references.
- For first time supply by the vendor, sample approval to be obtained before bulk manufacturing from BHEL Quality/Engg.
- The SQAP shall be read in conjunction with BHEL Specification mentioned in Purchase Order and shall deem to include any additional tests as per the specification/Standard.
- In case of any contradiction between this SQAP, BHEL Specifications the following precedence shall be followed:
  - 1<sup>st</sup>: BHEL Purchase Order Specification;
  - 2<sup>nd</sup>: This STANDARD QUALITY ASSURANCE PLAN & Applicable standard;
  - 3<sup>rd</sup>: Manufacturers plant standards
- Packing shall be as per BHEL purchase order.
- BHEL reserves the right for pre-dispatch inspection at vendor works by BHEL or BHEL nominated agency.**
- In case of pre-dispatch inspection, vendor shall raise the inspection call in the online portal URL: [www.cqir.bhel.in](http://www.cqir.bhel.in) with inspection agency as BHEL SBD and shall upload Test Certificates, Internal inspection Report as per this SQAP in CQIR Portal. Final Pre dispatch inspection report must contain joint inspection report, internal inspection report & Test certificates duly signed by inspector.
- Original Test Certificates, Internal Tests Report (Duly Sealed & signed) as per this SQAP shall be sent along with lot for review.

|   |  |  |  |   |  |  |
|---|--|--|--|---|--|--|
| <b>LEGEND: *D:</b> RECORDS, IDENTIFIED WITH "TICK" ( ✓ ) SHALL BE ESSENTIALLY INCLUDED BY VENDOR IN QA DOCUMENTATION.<br><b>** M:</b> MANUFACTURER/SUB-VENDOR, <b>B:</b> BHEL/BHEL NOMINATED INSPECTION AGENCY<br><b>P:</b> PERFORM <b>W:</b> WITNESS AND <b>V:</b> VERIFICATION. |  |  |  | Digitally signed by RAMANNA DHANANJAYA<br>DN: cn=RAMANNA DHANANJAYA, o=BHEL, ou=BHEL, email=ramanna.dhananjaya@bhel.in, c=IN<br>Date: 2022.06.28 16:24:45 +05'30' | Digitally signed by aditya kumar mourya<br>DN: cn=aditya kumar mourya, o=BHEL, ou=BHEL, email=aditya.kumar.mourya@bhel.in, c=IN<br>Date: 2022.06.28 16:24:45 +05'30' | Digitally signed by R Chaudhary<br>DN: cn=R Chaudhary, o=BHEL, ou=BHEL, email=rcd@bhel.in, c=IN<br>Date: 2022.06.28 17:02:02 +05'30' |
| <b>PREPARED BY:</b><br>R DHANANJAYA   |  |  |  | <b>REVIEWED BY:</b><br>KUMAR MOURYA   | <b>ADITYA</b>  | <b>APPROVED BY:</b><br>RAJNISH CHAUDHARY   |