



## PRE-Qualification Requirements against the tender

### Pre-Qualification requirement (PQR) of

- 1) Conductivity transmitter W96415206940
- 2) Conductivity probe W96415203339
- 3) Flow Thru chamber W96415203347

#### **A- Common qualification requirements for Conductivity transmitter W96415206940 & Conductivity probe W96415203339**

1. Bidder shall be manufacturer or authorized supplier of Conductivity Transmitter and Probe. Letter of authorization or suitable document shall be submitted in support for the same.
2. Bidder must have supplied 20 or more Conductivity transmitters+ probe in last 5 years from date of enquiry. Out of these at least 2 orders must be of 4 or more Units each. PO copies to be provided in support of the same.

#### **B- Technical requirement for Conductivity transmitter code W96415206940:-**

(Refer Note 1 below also)

- Suitable for measuring conductivity of DM water.
- HART Smart Two wire 24V,  $\mu$ P based programmable.
- Covers measuring range 0-5  $\mu$ Siemens/cm, Output signal 4-20mA
- Protection class IP65 or better
- Permissible load burden shall be 400  $\Omega$  or better.

Bidder to submit data sheet/ document in support of above features.

#### **C- Technical requirement for Conductivity Probe code W96415203339:-**

(Refer Note 1 below also)

- Sensor shall be continuous flow through type with Cell constant of probe 0.05 or better.
- Material of electrodes shall be stainless steel.
- Temperature compensation thermometer Pt100 or Pt1000 shall also be fitted inside the sensor.

Bidder to submit data sheet/ document in support of above features.

#### **D- PQR applicable for Flow- Thru-chamber Chamber code W96415203347:-**

- Item shall be suitable for mounting the offered Probe. Item automatically qualifies, on PQR qualification of Conductivity Probe & Transmitter.

Notes: -

- (1) Conductivity transmitter and Probe work in pair. Hence both Conductivity transmitter and Probe shall qualify their respective PQR independently, for purchase of either item. Failure to qualify PQR by either transmitter or Probe shall automatically disqualify the other.
- (2) The conductivity transmitter shall be used in Power Plant for DM water (used as cooling medium in Generator) conductivity measurement.
- (3) Bidder to provide reference list of customers of Conductivity Transmitter for our information.
- (4) Bidder to confirm specific compliance wherever asked. BHEL reserves the right to verify information submitted by Bidder. In case the information is found false/ incorrect/ incomplete, the offer shall be rejected.

## Quality requirement for tender

FOR INDIGENOUS SUPPLY, VENDORS TO CONFIRM INSPECTION BY BHEL TPIA "BVIL" AS PER ATTACHED BHEL SQP "QA/BE/QP/317, REV 07". VENDORS TO ENDORSE THE BHEL SQP ALONGWITH OFFERS. (QAP enclosed)

FOR FOREIGN SUPPLY, TESTING AND CERTIFICATION IS REQUIRED AS PER ORDERING DRAWING AND SPECIFICATION.

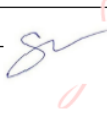
MANUFACTURER'S NAME AND ADDRESS		STANDARD QUALITY PLAN					TO BE FILLED BY BHEL		TO BE FILLED BY BHEL			
BHEL	VENDOR'S NAME	ITEM	CONDUCTIVITY MEASURING EQUIPMENT		QP NO.	QA/BE/QP/317						
					REV.	07						
		DRG. NO.	AS PER PO									
		SPEC. REV.	TG 60196									
SL. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS
1	2	3	4	5	6	7	8	9	D	10		11
<b>1.0 INCOMING INSPECTION</b>												
1.1	Conductivity sensor, conductivity transmitter and other electronic & electrical components	Visual, make, rating, model, type, valve, etc	Major	Visual	100%	TG 60196	TG60196/BOM	Internal records	V	P	V	
1.2	Flow chamber, electrode	Material	Major	Visual	100%	TG 60196	TG60196/BOM	COC	V	P	V	
1.3	Printed Circuit Boards	Visual, finish & dimensions	Major	Visual	100%	TG 60196	TG60196/BOM	Internal records	V	P	V	
1.4	Housing & enclosures	Visual defects, cutouts, drills, taps & painting	Major	Visual	100%	TG 60196	TG60196/BOM	Internal records	V	P	V	
<b>2.0 INPROCESS INSPECTION</b>												
2.1		Burn in test	Major	Electrical	100%	TG 60196	TG 60196 / Appd drawing	Test report		P	-	
2.2	Assembly of instruments	PCBs assemblies	Major	Visual	100%	TG 60196	TG 60196 / Appd drawing	Internal records		P	-	
2.3		Housing & enclosure assemblies	Major	Visual	100%	TG 60196	TG 60196 / Appd drawing	Internal records		P	-	
2.4		Internal layout, wiring, connections, and terminal marking	Major	Visual	100%	TG 60196	TG 60196 / Appd drawing	Internal records		P	-	
<b>3.0 FINAL INSPECTION</b>												
3.1	Type tests											Refer note
3.2	Routine tests											

	LEGEND: D RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION. M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER IN INSPECTION REPORT INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER	FOR CUSTOMER USE	APPROVED BY <b>SACHIN JAIN</b> 2021.07.13 16:22:18 +05'30'
MANUFACTURER/SUBCONTRACTOR			

MANUFACTURER'S NAME AND ADDRESS		STANDARD QUALITY PLAN					TO BE FILLED BY BHEL		TO BE FILLED BY BHEL					
BHEL	VENDOR'S NAME	ITEM	CONDUCTIVITY MEASURING EQUIPMENT		QP NO.	QA/BE/QP/317								
		DRG. NO.	AS PER PO		REV.	07								
		SPEC.	TG 60196											
		REV.	AS PER PO											
SL. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS		
1	2	3	4	5	6	7	8	9	D	M	B	N	10	11
3.2.1		Visual & dimension	Major	Visual/measuremnt	100%	TG 60196	TG 60196 / Appd drawing	IR	v	P	W			
3.2.2		Insulation resistance	Major	Electrical	100%	TG 60196	TG 60196 / Appd drawing	Test report	v	P	W			
3.2.3		Burn in test	Major	Electrical	100%	TG 60196	TG 60196 / Appd drawing	Test report	v	P	V			
3.2.4		Functional/simulation test (Output signals, LED indicators & digital indications accuracy for FIVE input values in the operating range)	Major	Electrical	100%	TG 60196	TG 60196 / Appd drawing	Test report	v	P	W			
3.2.5		Compliance of technical requirements	Major	-	100%	TG 60196	TG 60196 / Appd drawing	COC	v	P	V			
3.2.6		Completeness & correctness of documents	Major	Physical	100%	TG 60196	TG 60196 / Appd drawing /SQP	Docume nts	v	P	V			
4.0	Packing & marking													
4.1		Identification & marking	Major	Physical	100%	TG 60196	TG 60196	Internal records	v	P	V			
4.2		Sturdiness of packing against transit damage	Major	Physical	100%	TG 60196	TG 60196	Internal records	v	P	-			

Note:

1. Type tests clearance from BHEL Engg to be verified (by inspection engineer) during inspection at vendor's works.
2. Manufacturer to maintain calibrated instruments having better accuracy than the item under test. Inspection engineer shall check the same.

MANUFACTURER/SUBCONTRACTOR	LEGEND: D RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER IR: INSPECTION REPORT INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER	FOR CUSTOMER USE	APPROVED BY  SACHIN JAIN 2021.07.13 16:22:29 +05'30'

**Note: -**

1. BHEL will consider only those bidders for technical scrutiny, who will qualify pre - qualification requirement.

**COMPLIANCE SHEET FOR TECHNICAL/COMMERCIAL TERMS AND CONDITIONS as per GISTC**

Quotation against Enquiry No. \_\_\_\_\_ Dated: \_\_\_\_\_ Due on: \_\_\_\_\_

BHEL Standard Terms	Vendor's Acceptance
<p><b>1. Payment terms:</b></p> <p>a) Payment term should be <b><u>100% payment After Receipt &amp; Acceptance of Material.</u></b></p> <p>b) Bank Charges shall be Not Applicable.</p> <p><i>“Please note that in case of any deviation in the payment term, BHEL shall evaluate your offer after loading on account of deviation in payment term and loading factor shall be as per GISTC.”</i></p>	
<p><b>2.TAXES :</b> <b>TAXES &amp; DUTIES:</b> Rate of GST must be indicated in your offer even if it is inclusive.</p>	
<p><b>i. Rate of GST</b></p>	
<p><b>ii. Input Tax Credit Shall be available</b></p>	
<p><b>iii. Any Other Duty:</b></p>	
<p><b>3. Packing Charges</b> shall be included in quoted basic rates.</p>	
<p><b>4. Forwarding Charges</b> shall be included in quoted basic rates.</p>	
<p><b>5. Delivery basis:</b> On “FOR BHEL Haridwar” Basis &amp; Freight charges shall be inclusive in quoted basic rates.</p>	
<p><b>6. Delivery Period:</b> Please quote your shortest time period required for supply of material.</p>	
<p><b>7. Dispatch of Material:</b> Items should be dispatched through BHEL approved transporters, however Indian bank approved transporters having their branch at Hardwar (details available at <a href="http://www.bhelhwr.co.in">www.bhelhwr.co.in</a>) may be considered for dispatch of material. However in case dispatch through IBA approved transporter demurrage/any other charges shall be borne by supplier. In case dispatch made through un-approved transporters payment shall be made after receipt &amp; acceptance of material only and demurrage/any other charges shall be borne by supplier.</p>	
<p><b>8.</b> Transit insurance will be arranged by BHEL for which immediate intimation of dispatch is required as indicated in purchase order.</p>	
<p><b>9. Late delivery penalty Clause:</b></p> <p>Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies. Value of delayed supplies will mean the Gross Value payable to the vendor (Before LD) against such supplies excluding taxes and duties..</p>	

<p><b>10. Drawing / data approval: (If applicable)</b> Any drawing / data approval required from BHEL after placement of order Shall be submitted within 15 days of ordering and BHEL will ensure to provide approval within 15 days. Any delay beyond this period will be liability of the party at which end delay occurred. Further no change is acceptable in drawing/data after finalization of the offer.</p>	
<p><b>11. Authorization for Pre-inspection:</b>  BHEL is authorized to get pre inspect the material at vendor's works by BHEL/BHEL nominated agency. inspection report.</p> <ul style="list-style-type: none"> <li>• Pre dispatch inspection (PDI) call should be given at least 15 days in advance of schedule delivery. If supplier fails to give pre-inspection call with in stipulated time, this will not be a reason of penalty waiver or delivery extension.</li> </ul>	
<p><b>12. Offer Validity:</b> Validity of the offer should be minimum 120 days from tender opening date.</p>	
<p><b>13.</b> Confirm that there is no deviation with respect to BHEL Specifications/drawings. However, deviations, if any, are to be listed as a separate attachment. The offers that do not meet the substantial requirements of our enquiry are liable to be ignored.</p>	
<p><b>14.</b> Please note that no revision in the prices or submission of supplementary price bid will be allowed during the validity of the offer. However if there is any change by BHEL w.r.t. original specifications/ requirement/ scope/terms and conditions, the bidders may be asked by BHEL to submit only the price impact bid for such changes only.</p>	
<p><b>15.</b> Origin of Quotation: The quotation should be from the principal/original supplier even if it is submitted through their authorized agents, failing which the quotation is liable to be ignored.  <b>Also the name of principal supplier should be indicated on envelop in addition to Enquiry no and due date.</b></p>	
<p><b>16.</b> Pl. Confirm that the prices will remain firm during the entire validity and execution of the Project.</p>	
<p><b>17.</b> Test Certificate as per BHEL Specification / drawing shall be provided along with dispatch documents.</p>	
<p><b>18.</b> Guarantee certificate as per BHEL Specification shall be provided along with dispatch documents.</p>	
<p><b>19. Quality requirement:</b> FOR INDIGENOUS SUPPLY, VENDORS TO CONFIRM INSPECTION BY BHEL TPIA "BVIL" AS PER ATTACHED BHEL SQP "QA/BE/QP/317, REV 07". VENDORS TO ENDORSE THE BHEL SQP ALONGWITH OFFERS. (QAP enclosed)  FOR FOREIGN SUPPLY, TESTING AND CERTIFICATION IS REQUIRED AS PER ORDERING DRAWING AND SPECIFICATION.</p>	

**20. Documents requirement confirmation:**

1. Kindly ensure to submit PQR clause wise documents along with the offer.
2. Vendors to submit endorsed QP (QA/BE/QP/317, Rev 07) along with Offer.

**Note: Attach separate sheet for additional information if necessary. The above terms & condition supersedes the terms & conditions found contradictory written elsewhere in the tender enquiry and offer of bidder.**

Vendors are requested to comment on each applicable clause and write as "NA" if not applicable. Please attach this sheet with your techno-commercial offer.

**Signature with stamp**