

**Pre-Qualification Requirements (PQR)**

1. The firm of Bidder should have been in existence in past 3 years as on date of bid opening. Supporting documents "i.e. Last 3 years "Profit & Loss account/Balance Sheet/ GST returns/Any other acceptable document certified by CA" proving the firm is active in past 3 years to be provided.
2. Bidder/OEM should have supplied and handed over any seven items (must include Dew Point Meter, BOD Incubator, Jar Test Apparatus) of our enquiry with offered make/model in last 05 years as on date of bid opening to any industry/power project. Unpriced PO copy, Proof of supply and Commissioning / Installation / Hand Over Certificate with end user details (e.g. Customer Name, Contact Number, Email ID etc.) should be attached for the same.
3. In case of Agent/Reseller/Traders, offering equipment i.e. Dew Point Meter, BOD Incubator, Jar Test Apparatus from OEM, Authorization letter from OEM is required, clearly indicating contact details like Name, E-mail & address of manufacturer

Sl no	Item Description	Qty	Specification
1	Dry & Wet Bulb Thermometer	1	Annexure - 1A
2	Barometer	1	Annexure - 2A
3	Dew Point Meter	1	Annexure - 3A
4	Water Bath	1	Annexure - 4A
5	BOD Incubator	1	Annexure - 5A
6	Microscope Trinocular with Standard Accessories	1	Annexure - 6A
7	Lab Refrigerator - 300 Litres	1	Annexure - 7A
8	Lab Refrigerator - 265 Litres	1	Annexure - 8A
9	Digital Density Meter	1	Annexure - 9A
10	Wet & Dry Hygrometers	1	Annexure - 10A
11	Jar Test Apparatus	1	Annexure - 11A
12	Magnetic Stirrer	3	Annexure - 12A
13	Hydrometer	1	Annexure - 13A
<b>TECHNICAL SPECIFICATIONS</b>			
<b>Annexure - 1A</b>			
<b>1. 0 Dry &amp; Wet Bulb Thermometer</b>			
Wet & dry thermometers mounted on a case boxed with spare wick and related humidity tables. Thermometer shall have readings in both deg C and deg F. Temperature range : 0 to 122 deg F Graduations : every 2 deg F. Material : Boro Silicate Glass Medium : Mercury Length : 10" Min			
<b>Annexure - 2A</b>			
<b>2.0 Barometer</b>			
The Contractor shall furnish precision aneroid barometers of dial size 150 mm. The barometers shall have a range of 600 to 800 mm Hg with resolution = 1mm Hg and accuracy $\pm 1$ mm Hg temperature range $-5$ to 55 degC Range : 600 – 800mm Hg Mounting : Wall mounting Dial size : 150mm Auxiliary indicator to record the previous value : Required External adjustment Screw: Required			
<b>Annexure - 3A</b>			
<b>3.0 Dew Point Meter</b>			
The Dew point meter shall be used for measuring moisture in instrument air, service air, hydrogen etc. The Contractor shall furnish calibration accuracy guarded glass column to measure a range of moisture from (-) 100 to (+) 30deg. Cel. The range of moisture to be measured by offered instrument would also be acceptable if it meets power plant application requirement as listed above. The meter shall be accurate and readable to within 0.1deg.C as minimum.  Resolution : 0.1deg. C Accuracy : $\pm 2$ deg C Equipment shall be supplied with calibration certificate.			

<b>Annexure - 4A</b>
<p><b>4.0 Water Bath</b></p> <p>Purpose: Laboratory use</p> <p>Temperature range : 5 deg. Centigrade above ambient to 90°C</p> <p>Accuracy : <math>\pm 1^{\circ}\text{C}</math></p> <p>Construction Features:</p> <p>Body :</p> <p>Type : Double walled</p> <p>Material : Inner wall - stainless steel</p> <p>Dimension : 35 cm x 25 cm x 10 cm (Min.)</p> <p>Facilities desired :</p> <p>a) Thermostatic temperature control</p> <p>b) Built in constant level arrangement</p> <p>c) With cover plate to accommodate 4 viscometers of canon fenske, thermostat with digital temperature setting and reading</p> <p>Equipment shall be supplied with calibration certificate.</p>
<b>Annexure - 5A</b>
<p><b>5.0 BOD Incubator</b></p> <p>Capacity : 220 lit</p> <p>Refrigerant : R134A/R 404/ Equivalent CFC free refrigerant or Equivalent</p> <p>Heating power : 150W</p> <p>Cooling power : 200W</p> <p>Temperature range : <math>5^{\circ}\text{C}</math> to <math>50^{\circ}\text{C}</math></p> <p>Accuracy : <math>\pm 1^{\circ}\text{C}</math></p> <p>Temperature Display : 3 digits LED</p> <p>Temperature rising : Digital keypad</p> <p>Temperature control : Automatic microprocessor based</p> <p>Temperature sensor : PT 100</p> <p>Supply voltage : 240V, 50Hz</p> <p>Ambient temperature : <math>0 - 50^{\circ}\text{C}</math></p> <p>Double-walled inside anodized Aluminium and outside Mild steel sheet painted in epoxy powder coating with 'L' shape thermometer and two air circulation fans.</p> <p>Equipment shall be supplied with calibration certificate .</p>
<b>Annexure - 6A</b>
<p><b>6.0 Microscope Trinocular with Standard Accessories</b></p> <p>Range - 40 X - 400X</p> <p>Detachable Trinocular tube <math>360^{\circ}</math> rotatable, <math>30^{\circ}</math> inclined Dioptre compensation, Interpupillary distance adjustment</p> <p>Sample size - Up to 15mm diameter and up to 5mm thick</p>
<b>Annexure - 7A</b>
<p><b>7.0 Lab Refrigerator</b></p> <p>Type: Standard laboratory model</p> <p>Quantity: 1No(One for storage of chemicals)</p> <p>Capacity:300 Ltrs. or above</p>
<b>Annexure - 8A</b>
<p><b>8.0 Lab Refrigerator</b></p> <p>Type:Standard laboratory model</p> <p>Quantity: 1No(One for storage of samples)</p> <p>Capacity:265 Ltrs. Or above</p>

	Annexure - 9A
<b>9.0 Digital Density Meter</b>	
The density meter calibrated at 20°C within the range 600–1200 mg/cm <sup>3</sup> shall be supplied.	
	Annexure - 10A
<b>10.0 Wet &amp; Dry Hygrometers</b>	
Humidity Range : 10 – 100% Accuracy : 1.0% Resolution : ± 5%  Temperature Range : 0 – 55 °C Resolution : 0.1°C Accuracy : ±1°C Sensor type : Capacitance	
	Annexure - 11A
<b>11.0 Jar Test Apparatus</b>	
Type: Flocculator with Multiple stirring machine equipped with a variable speed drive  Stirrer: Four stainless steel stirrer paddles with an arrangement to vary the speed of each stirrer independently over a range of 6-60 RPM. The length of the paddles shall be such that at the max. speed of 60 RPM the tip velocity shall not exceed 600 mm/sec.  Speed control: Step less speed control through Rheostat or energy regulator  Speed measuring device Type : Tachometer Range : Rpm 0-100 Accuracy : Rpm 1 Smallest division : Rpm 1 Power supply : 240V,50Hz 1 PH, AC  Flocculator : Shall be" fitted with a fractional horse power motor and shall take jar or breaker of 1 litre capacity. It shall also have in illuminated arrangement for observing floc formation by providing a light source under the base & a suitable hole of approximately 25mm or more at the base for directing the light beam.  Equipment shall be supplied with calibration certificate.	
	Annexure - 12A
<b>12.0 Magnetic Stirrer</b>	
Purpose : Laboratory use Capacity : 3 (Min.) litres  Description Case : Die cast aluminium Top plate : Glass coated stainless steel Size of the plate : Square plate 180 x 180 mm (Min.) or Round plate 180 mm dia (Min.) Speed control : Stepless speed controlled upto 1200 RPM Stirrer type : Teflon coated stirring round bars Size : A) 7.9 mm (dia) x 13 mm (L) B) 7.9 mm, (dia) x 25 mm (L) C) 7.9 mm (dia) X 38 mm (L)  One each of the size indicated above.	

**13.0 Hydrometer**

Purpose : To measure Specific gravity of liquids

Temperature : 0 to 80 degree C

Range of measurement : 0 to 2

If single hydrometer is not available for above range then multiple number hydrometers to cover entire range ( 0 to 2) shall be offered.

Materials of Construction

Bulbs and stems: Chemically resistant glass

Description

i) Instrument shall have double scale.

ii) The bulbs and stems shall be streamlined so that hydrometer reaches without trapping air bubbles setting point

**Other Terms & Conditions**

1. Supplier has to clearly mention details of parts which have shelf life, if any, along with shelf life period and cost of these parts to be indicated separately.

2. Parts having Shelf life shall be carried by vendor representative at the time of I&C.

**Document:**

1. Hard copy of O&M Manual in English language giving complete technical information for operation and maintenance of the equipment. Valid Calibration Certificate, If applicable, would be provided along with supplied equipment.

2. Vendor to specify electrical requirement i.e. 1-Phase/3-Phase, Switch/Socket/MCB with Ampere rating and peak current drawn by the equipment along with the offer.

**Installation and Commissioning:** The supplier shall install and commission the equipment at site. Supplier should demonstrate the performance of the Equipment and all its accessories to ensure compliance with complete specifications & parameters quoted by them to the satisfaction of BHEL/end user.

Training to chemists at site during installation should be provided for routine maintenance, operation and safety purpose. Failing to comply to the Installation and Commissioning clause, the offer will be rejected straightaway. Any part (consumable/accessories) other than mentioned above required for successful I&C and demonstration shall be in vendor scope and will be carried by vendor representative during I&C and same shall be handed over to end-user.

**Warranty/Guarantee:** The equipment shall be warranted/guaranteed for satisfactory performance for a period of 12 months from the date of installation or 18 months from date of dispatch, whichever is later. Failing to comply to the warranty/Guarantee clause, the offer will be rejected straightaway.

**Packing & Dispatch:** The equipment / accessories shall be packed in a suitable water proof/vibration proof packing box capable of bearing air and road transit hazards. Packing box shall be properly identified and marked with BHEL's (India) Purchase Order Number. Also, "HWR LABS" should be written in bold letters on all four sides of the packing box.

**Buyer Specific ATC document for “Misc. Lab Items Package” of Udangudi project site**

1.	<p><b>Customer/BHEL Approval:</b></p> <p><b>For customer/BHEL approval, following documents are required:</b></p> <ul style="list-style-type: none"><li><b>A</b> List of experience wherein vendor / OEM has supplied in any industry (along with unpriced PO copies).</li><li><b>B</b> Customer satisfactory certificates (end user certificates).</li></ul> <p><b>Price bid of only those bidders will be opened who are finally approved by customer/BHEL.</b></p>
2.	<p><b>MDCC (Material dispatch clearance certificate) Clause:</b></p> <p>Please note that material shall be dispatched only after issue of Material dispatch clearance certificate (MDCC) by BHEL. For issue of MDCC, you are required to submit the set of documents (i.e. Packing list, Warrantee/Guarantee certificate, Test reports &amp; Calibration certificates etc.) at least 15 days prior to scheduled delivery.</p> <p>BHEL will release MDCC within 07 days from the date of receipt of complete documents as detailed above.</p> <p>The delivery period of 75 days is inclusive of 07 days taken by BHEL to issue MDCC.</p>
3.	<p><b>Pre-Qualification Requirement (PQR):</b></p> <p>The Pre-Qualification Requirements (PQR) have been made part of bid. All the bidders should ensure submission of complete details and documents as called for in the same. The offers submitted by the bidders would be scrutinized with respect to Pre-Qualification Requirements first.</p> <p><b>Techno-Commercial offer of only those bidders shall be evaluated who meet the Pre-Qualification Requirements.</b></p>
4.	<p><b>Technical Specification Requirement:</b></p> <p>(A) Please quote your valuable offer as per BHEL Specification enclosed with the bid documents.</p> <p>(B) Bidders to upload point-wise compliance of BHEL Specification along with the offer as a token of acceptance.</p>
5.	<p><b>Validity:</b></p> <p>Offer will be valid for 90 days from bid end date and extensions thereof.</p> <p><b>BHEL will reserve the right to reject any or all quotations, quoting validity less than 90 days.</b></p>
6.	<p><b>Delivery Period:</b></p> <p>The delivery shall be 75 days from the date of PO placement. This period is inclusive of 7 days for BHEL to arrange dispatch clearance (provided MDCC related documents are complete in all respect).</p>

7.	<p><b>Payment Terms:</b></p> <ul style="list-style-type: none"> <li>90% payment after receipt of material at site against submission of PBG @10% of Order value valid till entire Warrantee/Guarantee period. The PBG will be in BHEL format and from one of the BHEL consortium banks. For name of BHEL consortium bank, please visit our website <a href="http://hwr.bhel.com">hwr.bhel.com</a>.</li> <li>Balance 10% payment after installation and commissioning of all items at site.</li> <li>Payment will be released by BHEL within following days from the date of receipt of material at site: <ul style="list-style-type: none"> <li>- 45 days for Micro and Small enterprises.</li> <li>- 60 days for Medium enterprises</li> <li>- 90 days for Non MSME enterprises</li> </ul> </li> </ul>
8.	<p><b>Price Basis:</b></p> <p>Please confirm that prices have been quoted on F.O.R. Udangudi site basis including all taxes. Prices will remain firm and fixed during the entire validity and execution of the project.</p>
9.	<p><b>Evaluation criteria:</b></p> <p>Evaluation will be done on the basis of Total Landed cost up to Udangudi project site (<b>Total Value-wise evaluation</b>).</p>
10.	<p><b>Installation, Commissioning and Training at site:</b></p> <p>The supplier shall install and commission the equipment at site. Supplier should demonstrate the performance of the Equipment and all its accessories to ensure compliance with complete specifications &amp; parameters quoted by them to the satisfaction of BHEL/end user.</p> <p>Training to chemists at site during installation should be provided for routine maintenance, operation and safety purpose.</p> <p>Any part (consumable/accessories) other than mentioned above required for successful I&amp;C and demonstration shall be in vendor scope and will be carried by vendor representative during I&amp;C and same shall be handed over to end-user.</p> <p><b><i>Cost for Installation, Commissioning and Training should be inclusive in the quoted prices.</i></b></p> <p>Installation, Commissioning and Training will be done at following address:</p> <p>SE/ (PROJECTS) 2X660 MW UDANGUDI STPP STG-I, TANGEDCO, UDANGUDI, THOOTHUKUDI-628215</p> <p><b><i>Failing to comply to the above clause, the offer will be rejected straightaway.</i></b></p>
11.	<p><b>Warrantee/Guarantee:</b></p> <p>The equipment shall be warranted / guaranteed for satisfactory performance for a period of 12 months from the date of installation or 18 months from date of dispatch, whichever is later.</p> <p><b><i>Failing to comply to the Warrantee/Guarantee clause, the offer will be rejected straightaway.</i></b></p>

12.	<p><b>Document:</b></p> <p>One hard copy of O&amp;M manual in English language giving complete technical information for operation and maintenance of the equipment shall be supplied with the equipment. Valid Calibration Certificate, If applicable, would be provided along with supplied equipment.</p>
13.	<p><b>Packing &amp; Dispatch:</b></p> <p>The equipment / accessories shall be packed in a suitable water proof/vibration proof packing box capable of bearing air and road transit hazards. Packing box shall be properly identified and marked with BHEL's (India) Purchase Order Number. Also, "<b>PCRI HWR</b>" should be written in bold letters on all four sides of the packing box.</p>
14.	<p><b>Arbitration Clause:</b></p> <p>In case of any dispute arising out of as in connection with this contract, the same shall be referred to arbitration under Arbitration &amp; Conciliation Act 1996 of a sole arbitrator who shall be appointed by mutual consent of the parties. The seat &amp; venue of arbitration shall be Haridwar.</p> <p>The proceedings shall be conducted in English. The Governing law of contract shall be the substantive law of India.</p>
15.	<p><b>Breach of contract, Remedies and Termination:</b></p> <p>In case of breach of contract, performance bank guarantee available with BHEL against the said contract is atleast 10% of the contract value, the same be encashed. In case the value of the security instruments available is less than 10% of the contract value, the balance amount be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, etc. with BHEL) or legal remedies be pursued. Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.</p>
16.	<p><b>E-invoicing:</b></p> <p>E-invoicing under GST has been implemented w.e.f. 01.08.2023 for all the taxable persons having turnover more than Rs. 5.00 cr. it has been specified by the govt that it is mandatory to mention a valid unique invoice reference no. (IRN) and QR code as generated from govt. portal on a tax invoice. Based on such information, GST ITC as claimed by BHEL in GST returns shall be matched with the corresponding details uploaded by supplier in E-invoicing system.</p> <p>In case the vendor / contractor delays or fails to provide all the documents as per the purchase order / work order at the time of submitting tax invoice to BHEL, any subsequent financial loss to BHEL on account of vendor/contractor shall be to vendor's / contractor's account. BHEL has further right to take necessary steps to protect its interest at the time of release of payment. This further requires inclusion of IRN and QR code on tax invoice as announced by govt. of india w.e.f. 01.08.2023.</p>
17.	<p><b>General Clause:</b></p> <p>All other commercial terms and conditions will be governed by General Terms and Conditions (GTC) GeM GTC 4.0 v1.17_9 Aug 2024_09Aug24.</p>



18.	<p><b>Conflict of Interest among Bidders/ Agents:</b></p> <p>"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. <b>The bidder, found to have a conflict of interest shall be disqualified.</b> A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:</p> <ul style="list-style-type: none"> <li>a) they have controlling partner (s) in common; <b>or</b></li> <li>b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; <b>or</b></li> <li>c) they have the same legal representative/agent for purposes of this bid; <b>or</b></li> <li>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; <b>or</b></li> <li>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; <b>or</b></li> <li>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 a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following: <ul style="list-style-type: none"> <li>1. The principal manufacturer directly or through one Indian agent on his behalf; and</li> <li>2. Indian/foreign agent on behalf of only one principal, <b>or</b></li> </ul> </li> <li>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; <b>or</b></li> <li>h) In case of a holding company having more <b>than</b> 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. "</li> </ul>
19.	<p><b>Item Description in Packing List:</b></p> <p>Bidders to note that "Item Name" and "Unit of measurement" in the packing list should be in line with BHEL description.</p> <p>BHEL description will be provided to successful bidder before dispatch of material.</p>

20.	<p><b>Acceptance of offers from country Sharing Land Border with India:</b></p> <p>I. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, shall also require to be registered with the same competent authority.</p> <p>II. "Bidder" means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.</p> <p>III. "Bidder (or entity) from a country which shares a land border with India" for the purpose of this Order means: -</p> <ol style="list-style-type: none"> <li>An entity incorporated, established or registered in such a country; or</li> <li>A subsidiary of an entity incorporated, established or registered in such a country; or</li> <li>An entity substantially controlled through entities incorporated, established or registered in such a country; or</li> <li>An entity whose beneficial owner is situated in such a country; or</li> <li>An Indian (or other) agent of such an entity; or</li> <li>A natural person who is a citizen of such a country; or</li> <li>A consortium or joint venture where any member of the consortium or joint venture falls under any of the above</li> </ol> <p>IV. The beneficial owner for the purpose of (iii) above will be as under:</p> <ol style="list-style-type: none"> <li>In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation: <ol style="list-style-type: none"> <li>"Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;</li> <li>"Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;</li> </ol> </li> <li>In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;</li> <li>In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;</li> <li>Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;</li> <li>In case of a trust, the identification of beneficial owners) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.</li> </ol> <p>V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.</p>
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VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

VII. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.

VIII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

**Note:** Following declarations would be required from bidders (if applicable):

(A) "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

(B) "I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder does not have any ToT arrangement requiring registration with the competent authority.

**OR**

\* have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder has valid registration to participate in this procurement."

## Certificate

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017 & P-45021/2/2017-PP (BE-II) dated 28.05.2018, we hereby certify that we M/s \_\_\_\_\_(supplier name) are local supplier meeting the requirement of minimum local content (50%) as defined in above orders for the material against Enquiry No. \_\_\_\_\_

Details of location at which local value addition will be made is as follows:

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

We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Seal and Signature of Supplier