

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

**BHARAT HEAVY ELECTRICALS LIMITED**

**TIRUCHIRAPPALLI-620 014**

**WORKS CONTRACTS MANAGEMENT**

**NOTICE INVITING e-TENDER**

|     |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <b>Tender Ref No:</b>                                | <b>BHEL-TRY/ WCM/9472000042 / 03.06.2020</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2.  | Tender Type                                          | Open Tender -Two part (e-Tender)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.  | Name of works                                        | <b>WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.  | Location of work                                     | <b>BHEL-TRICHY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.  | Period of contract                                   | Fifteen months from the date of award of contract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.  | Earnest Money Deposit Amount                         | <b>As per B: Pre-qualification criteria : Earnest money deposit ( EMD)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7.  | Contents of Tender Document.                         | <p><b><u>A] Part-I Technical Bid</u></b> <span style="float: right;"><b><u>Pages</u></b></span></p> <p>ANNEX-1A (Technical Bid-Qualifying Criteria) <span style="float: right;">05</span></p> <p>ANNEX -1B (Scope of Work &amp; Technical Terms and Conditions) <span style="float: right;">05</span></p> <p>ANNEX -1C (General Terms &amp; Conditions of Contract) <span style="float: right;">11</span></p> <p>ANNEX -1D (Special Terms &amp; Conditions of Contract) <span style="float: right;">02</span></p> <p>ANNEX - A ( No deviation certificate) <span style="float: right;">01</span></p> <p>ANNEX - B ( EFT Format ) <span style="float: right;">01</span></p> <p>ANNEX -C ( EMD payment Instruction E-COLLECT) <span style="float: right;">01</span></p> <p><b><u>B] Part- II Price Bid</u></b> <span style="float: right;"><b><u>Pages</u></b></span></p> <p>ANNEX -II (Price bid) <span style="float: right;">01</span></p> |
| 8.  | Address for submission of offer                      | To be submitted electronically by logging to e-Procurement portal <b><a href="https://bhel.abcprocure.com">https://bhel.abcprocure.com</a></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 9.  | Contact details for queries related to tender        | <b>Satya Prakash</b> , Dy. Manager / WCM;<br>0431 257 5242; e-mail: <a href="mailto:satyaprakash@bhel.in">satyaprakash@bhel.in</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10. | Contact details for queries related to scope of work | Dr. T SRIHARSHA, DY. MANAGER/ R&D, BHEL-TRICHY<br>0431 257 8624; e-mail : <a href="mailto:sriharsha@bhel.in">sriharsha@bhel.in</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 11. | Due date for submission of offer                     | <b>15.06.2020/ 14:30 Hrs.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. | Due date for opening of Techno -Commercial Bid       | <b>15.06.2020/ 14:45 Hrs.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

**INSTRUCTIONS TO THE TENDERER**

- (a) EMD should be submitted as per Part-I(A)/Prequalification Bid/EMD (including EMD waiver, if any). Techno-commercial bid will be considered only, if the Part-I(A)/Prequalification Bid/EMD is valid. EMD in any other form and tender without EMD will be summarily rejected.
- (b) In case of offline payments, the hardcopies of Earnest Money Deposit (EMD) document/ DD submitted to WCM/BHEL and the soft-copies uploaded at the time of online bid submission should be the same, otherwise the tender will be summarily rejected.
- (c) Bidder should arrange for the EMD as specified in the tender. The original should be posted/couriered/given in person in a sealed cover super scribing 'Tender number/date/Part-I(A)/EMD' to the Tender Inviting Authority, within the bid submission date and time for the tender.
- (d) Any deviation to this tender terms & conditions, and schedules of this tender will lead to total rejection of the offer submitted.
- (e) Tenderer who have been suspended or black listed or issued with "Show Cause Notice" by BHEL, Tiruchirappalli -620014 or any other unit or GOI will not be allowed to participate in the tender, and bidder should declare the same in the tender. Even during the course of evaluation/ finalization of tender if it is found that some of the parties are black listed/ barred from business transaction/ under business hold, BHEL will not consider them for further participation in the tender.
- (f) Should a tenderer find discrepancies or omissions in the tender documents, or should there be any doubt as to their meaning, he should at once address the authority inviting the tender, for clarification well before the due date, so as to submit his tender in time. No extension of time shall be given for submission of the tender on any account.
- (g) Rates should be quoted as per the Work / Rate schedule (Price bid/Part –II). Rates quoted in any other form will not be accepted, and will be rejected.
- (h) The tender must be signed digitally / physically by Partner/ Director of the Firm or by the person holding the Power of Attorney on behalf of the Firm concerned. In the latter case, a copy of Power of Attorney, duly attested by a Notary Public must accompany the tender.
- (i) If a tenderer deliberately gives wrong information in his tender or creates conditions favourable for the acceptance of his tender, the BHEL will reject such tender at any stage.
- (j) Words imparting singular number shall be deemed to include plural number and vice-versa where the context so requires.
- (k) Canvassing in any form in connection with tenders is strictly prohibited and the tenders submitted by the Contractors who resort to canvassing will be liable for rejection.
- (l) Should a Tenderer's or a Contractor's or in the case of a firm or company of contractors/any of its shareholder's or shareholder's relative is employed in BHEL, the authority inviting the tenders shall be informed in writing of this fact at the time of submission of the tender, failing which the tender may be disqualified, or if such fact subsequently comes to light, the contract may be cancelled.
- (m) The tender schedule, and the tender shall be deemed to form an integral part of the contract to be entered into for this work.
- (n) Tenderer shall sign the tender documents for having accepted the conditions and upload in e-procurement portal.
- (o) Tender can be cancelled at any stage due to unavoidable circumstances.
- (p) Kindly ensure that the total size of the scanned documents to be uploaded remains minimum. If required, documents may be scanned at lower resolutions say at 150 dpi. However, it shall be sole responsibility of bidder that the uploaded documents remain legible.

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

- (q) Bidder are advised not to wait till the last minutes or last few seconds w.r.t tender closing time to submit their offer to avoid complications related with internet connectivity / network problem/ power failure etc.
- (r) It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.
- (s) The bidder has to upload the scanned copy of all the mentioned original documents (in colour) during online bid-submission.
- (t) In case you are not in a position to submit the offer, please send letter suitably specifying the reasons thereof.

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

**Check list for submission of offer**

| Sl. No                                                                                                                                                                                                                           | Description                                                                                                                                                             | Remarks                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 1                                                                                                                                                                                                                                | Details of Earnest Money Deposit amount <b>as per B: Pre-qualification criteria : Earnest money deposit( EMD).</b>                                                      | <input type="checkbox"/> uploaded / <input type="checkbox"/> Not uploaded                                |
| Sl. No                                                                                                                                                                                                                           | Description                                                                                                                                                             | Remarks                                                                                                  |
| 2                                                                                                                                                                                                                                | Details and documentary evidence for <b>Part-I: Technical Bid</b> to meet the pre-qualification criteria as per following details.                                      | <input type="checkbox"/> uploaded / <input type="checkbox"/> Not uploaded                                |
| 2.1                                                                                                                                                                                                                              | Duly signed and stamped copy of documentary evidence in support of <b>Status of the Enterprise/ Company/ Firm</b> as indicated in pre-qualification criteria.           | <input type="checkbox"/> uploaded / <input type="checkbox"/> Not uploaded                                |
| 2.2                                                                                                                                                                                                                              | Duly signed and stamped copy of documentary evidence in support of <b>Pre- Qualification Criteria: Technical competency</b> as indicated in pre-qualification criteria. | <input type="checkbox"/> uploaded / <input type="checkbox"/> Not uploaded                                |
| 2.3                                                                                                                                                                                                                              | Duly signed and stamped copy of Income Tax Registration ( PAN ) & GST ( As applicable )                                                                                 | <input type="checkbox"/> Enclosed / <input type="checkbox"/> Not enclosed                                |
| 2.4                                                                                                                                                                                                                              | Duly signed and Sealed copy of <b>"No Deviation Certificate"</b> in letterhead as per enclosed Annexure-A of tender document                                            | <input type="checkbox"/> Enclosed / <input type="checkbox"/> Not enclosed                                |
| 2.5                                                                                                                                                                                                                              | Acceptance for participation in RA in case BHEL decides to go for RA.                                                                                                   | <input type="checkbox"/> Accepted / <input type="checkbox"/> Not Accepted                                |
| 3                                                                                                                                                                                                                                | Rates quoted as per Price bid format available on e-portal.                                                                                                             | <input type="checkbox"/> Quoted as per tender format / <input type="checkbox"/> Not Quoted as per tender |
| 4                                                                                                                                                                                                                                | All the information and relevant documents as asked in tender.                                                                                                          | <input type="checkbox"/> Uploaded / <input type="checkbox"/> Not uploaded                                |
| Note: Bidders are requested to submit documents to meet the pre-qualification criteria of tender only. Additional documents not relevant to tender pre-qualification criteria / tender need not be enclosed along with the offer |                                                                                                                                                                         |                                                                                                          |

**PART-I (TECHNO COMMERCIAL BID)**

**A: (Bidders Profile)**

|     |                                                                                                             |                                                                                                                                                                                          |
|-----|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | Name of the Enterprise/<br>Company/ Firm.                                                                   | To be filled in e-procurement portal                                                                                                                                                     |
| 2.  | Name of Directors / Partners /<br>proprietor of Enterprise/<br>Company/ Firm                                | To be filled in e-procurement portal                                                                                                                                                     |
| 3.  | Registered Address of<br>Enterprise/ Company/ Firm                                                          | To be filled in e-procurement portal                                                                                                                                                     |
| 4.  | Contact Details :<br>Landline /Mobile number:.                                                              | To be filled in e-procurement portal                                                                                                                                                     |
| 5.  | E-mail Address for<br>communication w.r.t tender /<br>award of work.                                        | To be filled in e-procurement portal                                                                                                                                                     |
| 6.  | Name and Contact details of<br>person for communication<br>related to Tender                                | To be filled in e-procurement portal                                                                                                                                                     |
| 7.  | BHEL Vendor Code (If any)                                                                                   | To be filled in e-procurement portal<br>(If vendor code is not available, kindly upload the RTGS<br>Format duly filled and signed as per Annexure-C along<br>with cancelled cheque leaf) |
| 8.  | <b>PF Registration (As applicable)</b><br>To be obtained before start of<br>work if already not registered  | To be filled in e-procurement portal<br>(Copy of registration to be attached)                                                                                                            |
| 9.  | <b>ESI Registration (As applicable)</b><br>To be obtained before start of<br>work if already not registered | To be filled in e-procurement portal<br>(Copy of registration to be attached)                                                                                                            |
| 10. | <b>Labour License (As applicable)</b><br>To be obtained after award of<br>work and before start of work     | To be filled in e-procurement portal<br>(Copy of registration to be attached)                                                                                                            |

**NOTE:**

If vendor fails to get PF / ESI /Labour License (As applicable) before start of work, EMD / SD shall be forfeited and penal action shall be taken as per Extant rules of BHEL.

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER  
NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

**B: Pre- qualification Criteria: Earnest Money Deposit (EMD) & status of firm**

|                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>                                                                           | <p><b>EMD amount:</b> ₹ 39,200 /- (Rupees Thirty-Nine thousand and two hundred only)</p> <p>EMD may be submitted in following ways:</p> <p>i) Electronic fund transfer credited in BHEL account (Before Tender Opening). (Refer Annexure –C for making EMD payment through SBI-E collect)</p> <p>ii) In the form of Cash deposit (Done before tender opening) / Bankers Cheque / Pay order / DD / FDR (Along with offer) drawn in favour of BHEL - Trichy, payable at Trichy issued by Scheduled Bank / Nationalized bank / Consortium banks.</p> <p><b>EMD in any other form (One Time EMD, BG for full value of EMD etc.) is not acceptable.</b></p> | <p><b>DD/ FDR / PAY ORDER DETAILS:</b></p> <p>AMOUNT: ₹</p> <p>INST. NO:</p> <p>INST. DATE:</p> <p>ISSUING BANK:</p> <p style="text-align: center;"><b>OR</b></p> <p><b>ONLINE PAYMENT DETAILS:</b></p> <p>AMOUNT: ₹</p> <p>RECEIPT NO:</p> <p>RECEIPT DATE:</p> <p>BANK DETAILS:</p> |
| <b>2.</b>                                                                          | <p>Status of the Enterprise/ Company/ Firm.<br/>( Vendor to provide the details and copy of document in support of above )</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Status:.....</p> <p>Reg. No: .....</p> <p>Reg. Date: .....</p> <p style="text-align: center;">To be filled in e-procurement portal</p>                                                                                                                                             |
| Following documents may be submitted based on status of Enterprise/ Company/ Firm. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                       |
| 2.1                                                                                | Sole Proprietorship                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Trade License / GST registration / Auditor's letter                                                                                                                                                                                                                                   |
| 2.2                                                                                | Partnership                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Registered Partnership Deed and (Trade License / GST registration)                                                                                                                                                                                                                    |
| 2.3                                                                                | Private Limited Company / Public Limited Company / Public Sector / Govt. Org                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Certificate of Registration/Memorandum of Association & Articles of Association                                                                                                                                                                                                       |
| 2.4                                                                                | Others                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Valid document.                                                                                                                                                                                                                                                                       |

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

**C: Pre- qualification Criteria: Technical competency**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>   | <b>Work Experience</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>1.1</b> | <p>Vendor shall have carried out the following job after 31.03.2016</p> <p>1)Supplied and coated with nano-coating for arresting or minimizing deposition of dust layer for at least ONE solar plant of minimum 500 kWp generation capacity(as on the original date of tender opening)</p> <p style="text-align: center;">OR</p> <p>2)Supplied and coated at least 500 nos. of solar panels in different plants (as on the original date of tender opening)</p> <p>EITHER (i) In India OR (ii) In at least any one country globally.</p> <p>The name and contact addresses of the customers to whom the above mentioned nano-coating applications were carried out to be furnished with details.</p> <p>WO / PO copy along with TDS (Tax Deducted at Source) certificate issued by the organization OR Form 26 AS or Bank statement for transaction of payment to be enclosed.</p> |
| <b>1.2</b> | <p><b>Satisfactory performance of the system for which application of Nano coating has been done by vendor for a minimum period of ONE year from the date of application (as on the original date of tender opening).</b></p> <p>Performance certificate as Original Certificate or E-mail directly from the customer in India or abroad may be submitted. The original certificate may be returned after verification by BHEL, if required. Certified copies of any technical research work completed using the vendor's product, if available, may also be submitted.</p>                                                                                                                                                                                                                                                                                                        |
| <b>1.3</b> | <p><b>Vendor should be capable of handling and applying at least 50 liters of coating solutions per month.</b></p> <p>(Necessary documentary proofs supporting the same.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>1.4</b> | <p><b>Vendor to furnish Reference List of Customers, with complete address, details of contact person, where similar work has been carried out in the past, SERVICE-AFTER-SALES Set-up in India including the Address of Agents / Service Centers in India.</b></p> <p>(Details to be provided)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>1.5</b> | <p><b>The Technical Offer shall be supported by copies of product Catalogues, Data Sheets and technical details of Bought-Out Items and any additional data to supplement the application capability of the BIDDER for the subject requirement.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|            | <p>BHEL reserves the right to verify the information provided by the Vendor for the referred coating application at their referred customer's works. It shall be the responsibility of the vendor to facilitate the visit of BHEL's team at their referred customer works. Travel, Board and Lodging expenses for BHEL Personnel shall be borne by BHEL. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected. BHEL reserves the right to accept or reject the offer based on the assessment of their technical and financial capability.</p>                                                                                                                                                                                                                                                                                   |

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

**D: Pre- qualification Criteria: Statutory requirements & acceptance to Tender terms & conditions**

|          |                                                                                                                                                                                          |                                                                                                                                                                                                                                              |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>Income Tax Registration (PAN)</b><br>(Documentary evidence to be enclosed )                                                                                                           | PAN: To be filled in e-procurement portal<br><br>Self-attested copy of <b>Income Tax Registration</b><br><input type="checkbox"/> Enclosed / <input type="checkbox"/> Not enclosed                                                           |
| <b>2</b> | <b>Goods and Service Tax (GST) Registration</b><br>(If any specific exemption is available, a declaration with due supporting documents need to be furnished for considering the offer ) | GST No: To be filled in e-procurement portal<br><br>Self-attested copy of <b>Goods and Service Tax (GST)Registration</b><br><input type="checkbox"/> Enclosed / <input type="checkbox"/> Not enclosed /<br><input type="checkbox"/> Exempted |
| <b>3</b> | Duly signed and Sealed copy of “ <b>No deviation certificate</b> ” in letterhead as per enclosed Annexure-A of tender document in Enterprise/ Company/ Firm letterhead.                  | <input type="checkbox"/> Enclosed / <input type="checkbox"/> Not enclosed                                                                                                                                                                    |
| <b>4</b> | Applicable GST % against the scope of work                                                                                                                                               | To be filled in e-procurement portal                                                                                                                                                                                                         |
| <b>5</b> | Acceptance for participation in RA in case BHEL decides to go for RA.                                                                                                                    | To be confirmed in e-procurement portal                                                                                                                                                                                                      |

**NOTE:** Self attested copy of all the documents should be submitted along with Tender, if at any stage, the document(s) submitted by Contractor is / are found incorrect / false / fake, the necessary action will be taken by BHEL against Contractor viz., legal, Contractual, BHEL Policy / Procedural Actions in whatsoever manner as deemed fit.

The bidder shall sign on all the copies of technical bid and affix his seal

**PART-I (TECHNO COMMERCIAL BID)**

**SCOPE OF WORK AND TECHNICAL TERMS & CONDITIONS**

**A. BILL OF QUANTITY (BOQ)**

| <b>SN</b> | <b>Payment<br/>(% of contract value)</b> | <b>Milestones</b>                                                                                                                                         |
|-----------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>  | 75%                                      | Upon receipt of coating materials/solutions as per agreed specifications at BHEL, Trichy and upon completion of pre cleaning and coating of 2,496 panels. |
| <b>2</b>  | 5%                                       | Upon successful prove out of energy yield by 1 % in coated panels against un coated panels within a measurement period of 3 months.                       |
| <b>3</b>  | 2.5%                                     | After 1st inspection (and repair/recoat, if required) of the coatings as per Clause 10.0                                                                  |
| <b>4</b>  | 2.5%                                     | After 2nd inspection (and repair/recoat, if required) of the coatings as per Clause 10.0                                                                  |
| <b>5</b>  | 2.5%                                     | After 3rd inspection (and repair/recoat, if required) of the coatings as per Clause 10.0                                                                  |
| <b>6</b>  | 2.5%                                     | After 4th inspection (and repair/recoat, if required) of the coatings as per Clause 10.0                                                                  |
| <b>7</b>  | 10%                                      | After one year from application of coating on meeting the guarantee parameters.                                                                           |

**B. SCOPE OF WORK**

| Sl. No. | Particulars and BHEL Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Bidder's Remarks / Acceptance |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------|
| 1.0     | Purpose & Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                               |
| 1.1     | Supply, application and prove-outs of a thin layer of nano-coating on the glassy surface of 2,496 solar panels. The purpose of the coating is to arrest or minimise the soiling losses due to accumulation of various kinds of dust, which is a function of local geography. The nature of the coating material shall be such that it does not block the electromagnetic component of solar radiation comprising the visible, UV and IR components of the solar spectra. The coating should be most effective in the wavelength ranges from 250nm to 800nm. Pre-cleaning of the panels, drying, application of the coating and post treatment, if required, are under the scope of bidder. | Bidder to note |                               |
| 2.0     | Solar Plant Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                               |
| 2.1     | Type: Grid-interactive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bidder to note |                               |
| 2.2     | Total capacity: 5MW <sub>p</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                               |
| 2.3     | Total number of panels: 19,968                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                               |
| 2.4     | Total number of PCUs (Power Conditioning Units): 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                               |
| 2.5     | Capacity of each PCU: 630kVA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                               |
| 2.6     | Total number of panels to be coated: 2,496                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                               |
| 2.7     | Panel rating: 250W <sub>p</sub> at STC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                               |
| 2.8     | Surface area of one panel: 1.64m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                               |
| 2.9     | Total surface area to be coated: 4,094m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                               |
| 3.0     | Geography of the Location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                               |
| 3.1     | Latitude: 10° 48' 18" N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bidder to note |                               |
| 3.2     | Longitude: 78° 41' 08" E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                               |
| 3.3     | Elevation: 88m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                               |
| 3.4     | Wind speed (average): 2.7m/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                               |
| 3.5     | Temperature (average): 34.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                               |
| 3.6     | Relative Humidity (average): 71.1%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                               |
| 4.0     | Technical Specifications of the Nano-coating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                               |

**Name of Works: WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

**Enquiry No.: BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|      |                                                                                                                                                                                                                         |                   |  |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| 4.1  | Coating Base Compound/Material Composition (typical)                                                                                                                                                                    | Bidder to specify |  |
| 4.2  | Process                                                                                                                                                                                                                 | Bidder to specify |  |
| 4.3  | Typical crystal structure of the coating composition                                                                                                                                                                    | Bidder to specify |  |
| 4.4  | Typical particle sizes of the composition                                                                                                                                                                               | Bidder to specify |  |
| 4.5  | Estimated dry film thickness of coating layer after application on panel surface (in microns)                                                                                                                           | Bidder to specify |  |
| 4.6  | Specific gravity of the liquid                                                                                                                                                                                          | Bidder to specify |  |
| 4.7  | Spread rate/coverage rate                                                                                                                                                                                               | Bidder to specify |  |
| 4.8  | pH value (before and after dilution)                                                                                                                                                                                    | Bidder to specify |  |
| 4.9  | Design viscosity in Poise (P) (before and after dilution (if any))                                                                                                                                                      | Bidder to specify |  |
| 4.10 | Density                                                                                                                                                                                                                 | Bidder to specify |  |
| 4.11 | Recoat times required                                                                                                                                                                                                   | Bidder to specify |  |
| 4.12 | Curing time after pre-cleaning and post-application (and recoat, if any)                                                                                                                                                | Bidder to specify |  |
| 4.13 | Coating should not affect the transmittance of the underlying glass substrate. The coating should be most effective in the wavelength ranges from 250nm to 800nm. Bidder to enclose relevant test reports/certificates. | Bidder to submit  |  |

**Name of Works: WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

**Enquiry No.: BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|            |                                                                                                                                                                                                                                                                       |                   |  |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| 4.14       | Coating compound shall be environment-friendly. It should not adversely affect the glass substrate. Bidder to enclose relevant test certificates/documents.                                                                                                           | Bidder to provide |  |
| 4.15       | Application of coating shall not affect the qualification and type approval of crystalline silicon modules complaint to IEC 61215-1-1:2016.                                                                                                                           | Bidder to confirm |  |
| 4.16       | Material Safety Data Sheets (MSDS) and broad chemical composition of the coating liquid and degreaser/cleaning solution to be submitted along with the offer. MSDS shall be in English and in line with latest shipping, safety and health/environmental regulations. | Bidder to confirm |  |
| 4.17       | Coating layer should have excellent resistance to weathering, abrasion, chemical and harmful electromagnetic radiations. It should withstand the local environmental conditions.                                                                                      | Bidder to confirm |  |
| 4.18       | Physicochemical, human health and environmental effects of the coating liquid to be provided in detail.                                                                                                                                                               | Bidder to specify |  |
| 4.19       | Volume of coating required for the surface area as per clause 2.9. Bidder to account for additional quantities due to losses/spillage.                                                                                                                                | Bidder to specify |  |
| 4.20       | Bidder to enclose pertinent test certificates and product catalogues of the offered coating solution along with the offer.                                                                                                                                            | Bidder to submit  |  |
| <b>5.0</b> | <b>Application</b>                                                                                                                                                                                                                                                    |                   |  |
| 5.1        | Surface preparation and application of coatings for surface area as per clause 2.9 shall be completed within a period of <b>one month</b> from the date of receipt of materials at BHEL, Trichy                                                                       | Bidder to confirm |  |
| 5.2        | Application shall be done only during clear weather days to ensure no damage to the coating layer till curing. The days so selected shall be mutually agreed upon by both BHEL and Bidder.                                                                            | Bidder to confirm |  |

**Name of Works: WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

**Enquiry No.: BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| 5.3 | Aerial inspection with radiometric data acquisition, identification of anomalies and actionable report generation to be carried out before and after application. The detailed survey report shall be furnished to BHEL for analysis and action.                                                                                                                                                                                                                                                                         | Bidder to confirm |  |
| 5.4 | Prior to application of coating, the entire surface shall be thoroughly cleaned of all rust, grease, dirt etc. High pressure water jets may be employed. The surface shall be dried of any moisture using manual cleaning. Any chemical required for necessary surface preparation is in the scope of the bidder. Soft cotton clothes and other cleaning materials are under the scope of the bidder. Bidder shall ensure sufficient quantities of cleaning materials to ensure uniformity in preparation of all panels. | Bidder to confirm |  |
| 5.5 | Coating thickness and coverage shall be uniform across the entire surface of panel. Formation of air bubbles, droplets etc. shall be avoided.                                                                                                                                                                                                                                                                                                                                                                            | Bidder to confirm |  |
| 5.6 | BHEL will ensure healthiness of the panels prior to coating. In case any damaged panels are encountered, BHEL will replace the same prior to coating.                                                                                                                                                                                                                                                                                                                                                                    | Bidder to note    |  |
| 5.7 | The coating shall be carried out with air assisted spray system. High volume, low pressure (HVLP) spray guns shall be used to achieve consistent coverage.                                                                                                                                                                                                                                                                                                                                                               | Bidder to confirm |  |
| 5.8 | Consumption pattern/coverage rate in ml per sq.m.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Bidder to specify |  |
| 5.9 | The coating shall be carried out by the bidder or bidder certified applicators. Bidder to ensure direct and constant supervision during the entire period of application. Bidder shall ensure that all panels are uniformly prepared, treated and coated as per agreed criteria of coating.                                                                                                                                                                                                                              | Bidder to confirm |  |

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|            |                                                                                                                                                                                                                 |                   |  |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| 5.10       | Bidder to ensure requisite manpower to ensure completion of job in the stipulated time period.                                                                                                                  | Bidder to confirm |  |
| 5.11       | Necessary equipment like crawlers, scissor lifts for reachability etc. shall be under the scope of the bidder. Any automation required for the application process shall also be under the scope of the bidder. | Bidder to confirm |  |
| 5.12       | Hardness of the surface after coating                                                                                                                                                                           | Bidder to specify |  |
| 5.13       | The coated surface shall be easy to clean with water without any special tools/equipment after application.                                                                                                     | Bidder to confirm |  |
| 5.14       | BHEL personnel will carry out inspections during the application process. Any rework or repair suggested by BHEL inspectors shall be completed by the bidder.                                                   | Bidder to confirm |  |
| 5.15       | Typical cleaning frequency post-application                                                                                                                                                                     | Bidder to specify |  |
| 5.16       | Typical life expectancy of the coated surface.                                                                                                                                                                  | Bidder to specify |  |
| 5.17       | Repair of any damage to the coated surface during that time as per clause 5.16 shall be under the scope of the bidder.                                                                                          | Bidder to confirm |  |
| 5.18       | Dry Film Thickness (DFT), humidity and temperature to be monitored monthly for a period of 3 months after application.                                                                                          | Bidder to confirm |  |
| 5.19       | Bidder shall ensure cleanliness of work and storage spots. Any waste generated shall be handled safely and disposed by the bidder as per prevalent methods and procedures.                                      | Bidder to confirm |  |
| <b>6.0</b> | <b>Scope of Supply</b>                                                                                                                                                                                          |                   |  |

**Name of Works: WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

**Enquiry No.: BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|     |                                                                                                                                                                                                                                                            |                   |  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| 6.1 | Supply and application of thin layer of nano-coating solution over the surface of 2,496 solar panels to arrest or reduce the deposition of dust and other organic matter.                                                                                  | Bidder to confirm |  |
| 6.2 | Surface preparation of 2,496 panels prior to application using cleaning solutions, manual wiping and post treatment.                                                                                                                                       |                   |  |
| 6.3 | Complete supply of all materials, transportation of materials to site, storage at site, handling, unpacking, disposal of packing material, providing scaffolding/supports, cleaning, surface preparation, application testing and retouching, if required. |                   |  |
| 7.0 | Documentation                                                                                                                                                                                                                                              |                   |  |
| 7.1 | Bidder shall submit detailed product information sheets including procedures for handling, storage, and application of the proposed coating material.                                                                                                      | Bidder to submit  |  |
| 7.2 | Bidder shall provide all relevant performance certificates, test certificates of the supplied materials.                                                                                                                                                   |                   |  |
| 7.3 | All documentation shall be in English.                                                                                                                                                                                                                     |                   |  |
| 8.0 | Intellectual Property Rights (IPR)                                                                                                                                                                                                                         |                   |  |
| 8.1 | BHEL reserves the sole ownership to any IPR arising out of the works.                                                                                                                                                                                      | Bidder to confirm |  |
| 9.0 | Prove-out                                                                                                                                                                                                                                                  |                   |  |
| 9.1 | BHEL will monitor the performance of the coated panels against uncoated lots for a period of 3 months. The electrical characteristics of the panels will be monitored and recorded PCU-wise in the SCADA system of the 5MW SPV.                            | Bidder to note    |  |

**Name of Works: WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

**Enquiry No.: BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|      |                                                                                                                                                                                         |                   |  |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| 9.2  | Energy Yield increase by minimum 1% from the current operating conditions post application.                                                                                             | Bidder to confirm |  |
| 10.0 | Guarantee Terms                                                                                                                                                                         |                   |  |
| 10.1 | Bidder shall guarantee the coated surface for a minimum period of 1 year from the date of application.                                                                                  | Bidder to confirm |  |
| 10.2 | Bidder shall repair/recoat the panel surface in case of any damages within the guarantee period.                                                                                        |                   |  |
| 10.3 | Bidder or their nominated personnel shall carry out inspection of the coatings every 3 months for a period of 1 years after application.                                                |                   |  |
| 11.0 | General Terms                                                                                                                                                                           |                   |  |
| 11.1 | Bidder is encouraged to visit the site to understand the techno-commercial requirements before submitting their offer.                                                                  | Bidder to note    |  |
| 11.2 | 415V + 10% / -10%, 50HZ +/-3 Hz, 3 Phase AC power supply will be provided by BHEL at a single point near the panels. Necessary length extension of cables is under the scope of bidder. | Bidder to note    |  |
| 11.3 | BHEL is not responsible for any loss or damage to the contractor’s equipment as a result of variations in voltage frequency or interruptions in power supply.                           | Bidder to note    |  |
| 11.4 | Bidder has to arrange for manpower and tool, tackles, spray guns, trolley, scissor lifts, compressors etc. for application of coating material.                                         | Bidder to note    |  |
| 11.5 | Water will be provided at single point at the site by BHEL free of cost. Further distribution, if required, shall be under the scope of the bidder.                                     | Bidder to note    |  |

**Name of Works: WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

**Enquiry No.: BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|       |                                                                                                                                                                                                                                                    |                   |  |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| 11.6  | Boarding, lodging, accomodation, local conveyance of workmen for the entire duration shall be under the scope of the bidder.                                                                                                                       | Bidder to note    |  |
| 11.7  | Bidder shall ensure safety of the workmen employed. They shall be provided with necessary and recommended PPE like mask, shoes etc. Any health check-up or medical attention, if required, during the work shall be under the scope of the bidder. | Bidder to note    |  |
| 11.8  | BHEL will designate an appropriate location for storage of the supplied materials. Necessary safety precautions and containments required for safe storage of the materials are under the scope of the bidder.                                     | Bidder to note    |  |
| 11.9  | Bidder shall ensure safety to men and environment while handling of the materials during preparation, mixing and application of the coating.                                                                                                       | Bidder to note    |  |
| 11.10 | Bidder shall demonstrate the proper method of application of coating systems to BHEL personnel as training.                                                                                                                                        | Bidder to note    |  |
| 11.11 | Bidder shall comply to delivery schedules and milestone payment terms for the entire process as per BOQ and Delivery schedule.                                                                                                                     | Bidder to confirm |  |

**C. CONTRACT PERIOD AND PLACE OF WORK:**

1. Duration of the contract: **Fifteen months** from the date of award of contract.

**Delivery Schedule:**

| Sl. No. | Milestones                                                                         | Delivery Dates                                                |
|---------|------------------------------------------------------------------------------------|---------------------------------------------------------------|
| 1       | Supply of coating materials/solutions as per agreed specifications at BHEL, Trichy | 2 months from the date of confirmation of WO                  |
| 2       | Pre-cleaning and coating of 2,496 panels                                           | 1 month from the date of receipt of materials at BHEL, Trichy |

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

|   |                                                                                                                                                                                      |                                                  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 3 | Successful prove-out of energy yield increase by 1% in coated panels against un-coated panels and 1st inspection (and repair/recoat, if required) of the coatings as per Clause 10.0 | 3 months from the date of completion of coatings |
| 4 | 2nd inspection (and repair/recoat, if required) of the coatings as per Clause 10.0                                                                                                   | 3 months from the date of 1st inspection         |
| 5 | 3rd inspection (and repair/recoat, if required) of the coatings as per Clause 10.0                                                                                                   | 3 months from the date of 2nd inspection         |
| 6 | 4th inspection (and repair/recoat, if required) of the coatings as per Clause 10.0                                                                                                   | 3 months from the date of 3rd inspection         |

**2. The work shall be carried out at BHEL - Trichy.**

**D. LIQUIDATED DAMAGES (LD)/PENALTY:**

Penalty @ 0.5 % of order value per week of delay in execution of work as per delivery schedule of scope of work or part thereof subject to maximum of 10 % of total order value.

In case of any amendment / revision, Penalty shall be linked to the amended / revised PO value.

**E. PAYMENT TERMS:**

1. Payment will be made after completion of work on pro-rata basis based on actual work executed as **per milestones mentioned in BOQ** after acceptance and certification of Area in charge (BHEL Executive). Payment shall be made after 45 days of submission of bill complete in all respect.
2. The proof of execution of work should be submitted along with each bill (printed form with covering letter and proof for execution of work).
3. If the Contractor is not registered for any statutory obligation and not liable thereto, then a declaration shall be submitted along with offer that they are within the threshold limit / exempted.
4. No advance may be paid for operational or any other expenses.
5. Goods and Services tax will be payable extra by BHEL at prevailing rates and corresponding TDS will be made as per Government norms.

**PART-I (TECHNO COMMERCIAL BID)**

**ANNEXURE-IC**

**GENERAL TERMS & CONDITIONS OF CONTRACT**

**1. Definition:**

In these General Conditions of Contract, the following terms shall have meaning hereby assigned to them, except where the context otherwise requires:

- a) The "Contract" means, the documents forming the tender and acceptance thereof, together with all the documents referred to therein including general and special conditions to contract. All these documents as applicable taken together shall be deemed to form one contract and shall be complementary to one another.
- b) The "Work" means, the work described in the tender documents in individual work orders as may be issued from time to time to the contractor by the Officer-In charge within the power conferred upon him including all notified or additional items of works and obligations to be carried out as required for the performance of contract.
- c) The "contractor" means, the individual Firm or Company whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individuals or the persons composing the firm or Company or the successors of the firm or company and the permitted assigns of such individual or firm or Company.
- d) "The Officer-In charge" means, the Officer deputed by the BHEL to supervise the work or part of the work.
- e) "Approved" and "Directed" means, the approval or direction of the respective area **HOD** or person deputed by him for the particular purposes.
- f) "BHARAT HEAVY ELECTRICALS LIMITED" (hereinafter referred to as BHEL) shall mean the Board of Directors, Chairman, Executive Director, General Manager or, other Administrative Officer of the said Company including AGM / WCM authorised to invite tenders and enter into contract for works on behalf of the Company.
- g) The "Contract sum" means, the sum accepted or the sum calculated in accordance with the prices accepted in tender and / or the contract rates as payable to the contractor for the execution of the work during the currency of the contract.
- h) A "week" means, Seven Days, without regard to the number of hours worked or not worked in any day in that week.
- i) A "day" means, the day of 24 hours (TWENTY-FOUR) irrespective of the number of hours worked or not worked in that day.

**2. Heading to the Contract Conditions:**

The heading to these conditions shall not affect the interpretations thereof.

**3. Deviations:**

The contractor shall not carry out any work not covered by schedule except in pursuance of the written instructions of the respective area HOD/WCM. No such work shall be valid unless the same has been specifically confirmed and accepted by BHEL in writing and incorporated in the Contract.

**4. Work to be carried Out:**

The Contract shall include all labour which may be required for the execution of the work.

The Contractor will be deemed to have satisfied himself as to the nature of the site, local facilities of access and all matters affecting the execution of the work. No. extra charges consequent on any misunderstanding in these respects or otherwise will be allowed.

**5. Assignment of Transfer of Contract:**

The Contractor shall not, assign or transfer the contract or any part thereof, or any share, or interest thereon to any other persons.

**6. Sub-Contract:**

**7. Compliance to Regulations and Bye-Laws:**

The Contractor shall confirm to the provisions of any statute relating to the work and regulations and Bye-laws of any local authority. The Contractor shall be bound to give all notices required by statutory regulations or by-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

**8. Earnest Money Deposit (EMD) & Security Deposit (SD):**

**Earnest Money Deposit (EMD):**

Tender must be accompanied by Earnest Money for the amount mentioned in tender notice, pledged to BHEL, Trichy in any of the forms mentioned below.

**Modes of Deposit:**

The EMD shall be accepted only in the following forms:

- a) Cash deposit as permissible under the extant Income Tax Act (before tender opening)
- b) Electronic Fund Transfer credited in BHEL account (before tender opening)
- c) Banker's cheque/ Pay order/ Demand draft, in favour of BHEL (along with offer)
- d) FDR issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL)
- e) In addition to the above, the EMD amount in excess of ₹ 2,00,000 /- ( ₹ two lakhs) also acceptable in the form of Bank guarantee from scheduled banks. The bank guarantee in such cases shall be valid for at least six months. (BG Format attached as Annexure-J)

**Forfeiture of EMD:**

EMD by the tenderer will be forfeited as per tender documents if

- i) After opening the Tender, the Tenderer revokes his Tender within the validity period or increase his earlier quoted rates.
- ii) If only, a part of the work included in the tender has been awarded to the tenderer and the tenderer refuses to take up the work the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.
- iii) The Tenderer does not commence the work within the period as per LOI / Contract. In case the LOI / Contract is silent in this regard then within 7 days after award of Contract.
- iv) "GST will be charged on the EMD/SD amount forfeited from the bidder at the applicable rates. GST tax Invoice will be issued to the vendor on receipt/recovery of GST amount from the vendor"

**General Terms related to EMD:**

Earnest Money Deposit (EMD) will not carry any interest.

Earnest Money Deposit (EMD) of the successful tenderer will be retained as part of Security deposit.

The Earnest Money Deposit (EMD) will be refunded to the unsuccessful tenderers within 15 days of acceptance of the award of work by successful tenderer / expiry of offer validity period.

**Security Deposit (SD):**

The contractor whose tender has been accepted shall, within seven days of receipt of the notification of acceptance of his tender, should deposit Security deposit @ 5 % of Contract value.

EMD of the successful tenderer shall be converted and adjusted towards the required amount of **Security deposit (SD):**

**Modes of Deposit:**

The balance amount to make up the required Security Deposit of 5% of the contract value may be accepted in the following forms:

- i) Cash (as permissible under the extant Income Tax Act)

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

- ii) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL
- iii) Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL
- iv) Fixed Deposit Receipt issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL)
- v) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL)

**General Terms related to SD:**

The security Deposit will not carry any interest.

Security Deposit shall be released to the contractor upon fulfilment of Contractual obligations as per terms of contract.

BHEL, shall not be responsible for any loss of securities due to liquidation or any other reason whatsoever or any depreciation in the value of the Securities while in their charge or for any loss of interest thereon.

NOTE: Acceptance of Security Deposit against Sl. No. (iii),(iv) and (v) above will be subject to hypothecation or endorsement on the documents (Signature of the Branch Manager must be present ) in favor of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

All compensation or other sums of money payable by the contractor to BHEL under the terms of this contract or under any other contract with BHEL, may be deducted from the Security Deposit or realized by the sale of the securities of from the interest arising there from or from any sums which may be due or may become due to the contractor payable by BHEL, on any account whatsoever against this contract of any other contract with BHEL and in the event of his Security Deposit being reduced by reason of such deductions or sale as aforesaid, the Contractor shall within seven days thereafter make good in cash or in securities endorsed as aforesaid, any sum or sums by which the security Deposit has been so reduced.

In case of an Award of a Contract and if the Contractor fails to perform or does not comply with the Performance Evaluation Criteria, the Security Deposit will not be refunded / Bank Guarantee encashed.

**The Bank Guarantee shall be kept valid until the due date for refund of Security Deposit.**

**Security Deposit has to be deposited within 7 days of LOI/WO. Else EMD will be forfeited and may also attract the provision of "Suspension of Business dealings with Suppliers/Contractors".**

**9. GOODS & SERVICE TAX (GST) REGISTRATION & COMPLIANCE**

1. Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration No (GSTIN) which should be clearly mentioned in the offer. If the dealer is exempted from GST registration, a declaration with due supporting documents need to be furnished for considering the offer. Dealers under composition scheme should declare that he is a composition dealer supported by the screen shot taken from GST portal. The dealer has to submit necessary documents if there is any change in status under GST.
2. Supplier shall mention their GSTIN in all their invoices (incl. credit Notes, Debit Notes) and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No. which is linked/uploaded in GSTN network shall be clearly indicated), Billed to party (with GSTIN) & Shipped to party details, item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, Place of Supply etc.
3. All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).
4. Invoices will be processed only upon completion of statutory requirement and further subject to following:
  - a) Vendor declaring such invoice in Form GST ANX-1

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

- b) Receipt of Goods or Services and Tax invoice by BHEL
5. As the continuous uploading of tax invoices in GSTN portal (in GST ANX-1) is available for all (i.e. both Small & Large) tax payers under proposed new GST Return System, all invoices raised on BHEL may be uploaded immediately in GST portal on dispatch of material /rendering of services. The supplier shall ensure availability of Invoice in GST portal before submission of invoice to BHEL. Invoices will be admitted by BHEL only if the invoices are available in GSTN portal (in BHEL's GST ANX-2).
  6. In case of discrepancy in the data uploaded by the supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by BHEL.
  7. In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-08 or Form GST RET-01 to be submitted) within stipulated time, then GST paid on the invoices pertaining to the month for which GST return not filed by the vendor will be recovered from the vendor along with the applicable interest (currently 24% p.a) and all subsequent bills of the vendor will not be processed till filing of the GST return by the vendor
  8. In case GST credit is denied to BHEL due to non-receipt or delayed receipt of goods and/ or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount claimed in the invoice shall be disallowed to the vendor.
  9. Where any GST liability arising on BHEL under Reverse Charge (RCM), the vendor has to submit the invoices to BHEL well within the timeline prescribed in GST Law, to enable BHEL to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by BHEL along with Interest, then such Interest payable or paid shall be recovered from the vendor.
  10. Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contracts. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Tax Invoice will be issued by BHEL indicating the respective supply invoice number.
  11. GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018 – Central Tax dated 13.09.2018. GST TDS certificate which will be generated in GST portal subsequent to vendor accepting the TDS deduction in the GST portal, will be issued to the vendor.

**10. Orders under the Contract:**

All orders, notices etc. to be given under the contract shall be in writing, typescript or printed and if sent by registered post to the address given in the tender of the Contract, shall be deemed to have been served on the date, when in the ordinary course they would have been delivered to him. The Contractor shall carry out without delay all orders given to him.

**11. Contractor's Supervision:**

1. The Contractor shall either himself supervise the execution of the contract or shall appoint a competent agent acceptable to BHEL Officials.
2. Orders given to the Contractor's agent shall be considered to have the same force as if they have been given to the Contractor himself.
3. The Contractor or his accredited agent shall attend when required without making any claim for doing so to the OFFICER-INCHARGE, to receive instructions.
4. The respective area HOD shall have full powers and without assigning any reason, requires the Contractor to immediately cease to employ in connection with this contract, any agent, servant or employee where continued employment is, in his opinion undesirable. The Contractor shall not be allowed any compensation on this account.

**12 Payment to employees engaged by the contractor:**

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

1. The Contractor shall remain liable for the payment of all wages and other payments in connection with the employees engaged by him and with regard to the work.
2. The Contractor shall comply with the applicable provisions of Payment of Wages Act-1936, Minimum Wages Act-1948, Employees' Liability Act-1938, Employees' Compensation Act-1923, Payment of Bonus, EPF and Miscellaneous Provisions Act-1952, Employees' State Insurance Act-1948 and other relevant Acts and rules framed, thereunder from time to time.
3. Contractor shall be responsible for making payment of wages within 7 days from the last day of wage period and shall obtain the signature at the end of entries in the wage register from area in-charge of contract operating department.
4. Contractor should ensure that at least the prevailing minimum wages, as per the rules of Government of Tamil Nadu, which are applicable are paid to his employees only in their respective nationalized bank accounts by means of NEFT/ RTGS/ IMPS.
5. The contractor should remit the salary/wages of their workmen only through nationalized Bank, directly to the salary/savings account of the employee concerned. monthly clearance will be given in respect of those contractors, only if the salary/wages to the workmen concerned has been remitted in the nationalized bank account of the workmen. The relevant Bank statement/proof for Bank payment should be produced along with PF and ESI challans every month.
6. No other mode of payment (hand payment / account transfer other than salary or any other) is acceptable as salary.
7. The contractor should pay the previous month salary in full to our employees before 7<sup>th</sup> of every month and will not adjust with any advance/ loan /training cost / accommodation cost / repayment due by the employee to us.
8. If the Contractor employs more than twenty employees, he has to obtain License to this effect from the Factory Inspectorate and renew the same periodically.
9. The Contractor should follow and comply with Minimum Wages, ESI, PF, Bonus, Group Insurance and other statutory regulations as stipulated in Factories Act and other applicable State / Central Governments' rules & regulations.
10. Each contract employees must have his own PF and ESI Codes and comply with the relevant Acts.
11. **As per BHEL circular HR-Welfare circular dt 08.04.2014, the following additional wages per month has to be paid by the Contractor over and above minimum wages declared by Tamil Nadu Government to labors as:**
  - a) Unskilled : ₹ 3,200/-
  - b) Semi-skilled : ₹ 3,700/-
  - c) Skilled : ₹ 4,100/-

**13. Precautions against Risk:**

The Contractor shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.

**14. Damage & Loss to Private Property & Injury to workmen:**

The Contractor shall at his own expense reinstate and make good to the satisfaction of the respective area **HOD** and pay compensation for any injury, loss or damage occurred to any property or rights whatever including property and rights of BHEL (or agents) servants or employee of BHEL, the injury loss or damage arising out of or in any way in connection with the execution or purported execution of the contract and further the contractor shall indemnify BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL, in respect of any such injury (including injury resulting in death) loss or damage to any person whomsoever or property including all claims which may arise under the Employees Compensation Act or otherwise.

**15. Laws Governing the Contract:**

The contract shall be governed by the Indian Laws for the time being in force.

**16. Cancellation of Contract for Corrupt Acts:**

BHEL, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued, shall accrue thereafter to BHEL cancel the contract in any of the following cases and the Contractor shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation to the same extent as provided in the case of cancellation for default.

If the Contractor:

- a) Offer or give or agree to give to any person in BHEL service any gift or consideration of any kind, as an inducement or reward for doing or for bearing to do or for having done or for having borne to do any act, in relation to the obtaining or execution of this or any other contract for BHEL service,  
OR
- b) enter into a contract or understanding with any person in BHEL in connection with which commission has been paid or agreed to be paid by him or with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to BHEL,  
OR
- c) To obtain' a contract with BHEL as a result of ring tendering or by non-bonafide methods of competitive tendering, without first disclosing the fact in writing to BHEL.

**17. Cancellation of Contract for Insolvency Assignment of Transfer or Subletting of Contract:**

BHEL, without prejudice to any other right or remedy, which shall have accrued or shall accrue thereafter to BHEL, shall cancel the contract in any of the following cases:

If the Contractor,

- a) Being an individual or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order for administration of his estate, made against him or shall take any proceedings for liquidation or composition under any bankruptcy Act or assignment of his effects of composition or arrangement for the benefit of his creditors or purport to do so, or if any application made under any Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditors.  
OR
- b) Being a Company, shall pass a resolution or Court shall make an order for the liquidation of its assets, or a receiver or Manager on behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or Manager.  
OR
- c) Assigns, Transfers, Sublets or attempts to assign, transfer or sublet any portion of the work.
- d) Whenever BHEL exercises the authority to cancel the contract under these conditions, BHEL may have the work done by any means at the Contractor's risks and expenses provided always that in the event of the cost of the work so done (as certified by the respective area **HOD**) being less than the contract cost, the advantage shall accrue to BHEL and if the cost exceeds the money due to Contractor under the contract, the Contractor shall either pay the excess amount ordered by the respective area **HOD** or the same shall be recovered from the Contractor by other means.
- e) In case BHEL carries out the work under the provisions of this condition, the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plants and / or labour provided by BHEL with an addition of such percentage to cover superintendence and establishment charges as may be decided by the respective area **HOD** whose decision shall be final and conclusive.
- f) Labour engaged by the contractor should be disciplined & exhibit good behaviour in dealing with employees of BHEL. Any misbehaviour or undesirable conduct of any person engaged by the contractor is reported, contractor shall change that person immediately or else it may even lead to termination of the contract & in such case security deposit will be forfeited as penalty.

**18. Cancellation of Contract in Part or Full for Contractor's Default:**

If the contractor:

- a) makes default in carrying out the work as directed and continues in that state after a reasonable notice from the respective area **HOD** or his authorized representative:
- b) fails to comply with any of the terms & conditions of the contract or failure to comply orders after reasonable notice in writing with orders properly issued thereunder:

BHEL, May without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL CANCEL the contract as whole or in part thereof or only such work order or items of work in default from the contract. Whenever BHEL exercises the authority to cancel the contract as a whole or part under this condition, BHEL may complete the work at the contractor's risk and cost (as certified by the respective area

**HOD** which is final and conclusive) being less than the contract cost, the advantage shall accrue to BHEL. If the cost exceeds the money due to the Contractor under this contract, the Contractor shall either pay the excess amount ordered by the respective area **HOD** or the same shall be recovered from the Contractor by other means. In case BHEL carries out the work or any part thereof under the provisions of the conditions the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plant and/or labour provided by BHEL with an addition of such percentage to cover the superintendence and establishment charges as may be decided by the respective area **HOD** whose decision shall be final and conclusive.

**19. Termination of Contract on Death of Contractor:**

Without prejudice to any of the rights or remedies under this contract, if the Contractor dies, or if the firm is dissolved or the company is liquidated, BHEL shall have the option of terminating the contract without compensation to the Contractor.

**20. Special Power to Termination:**

If at any time after the award of contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out the respective area **HOD** shall give notice in writing of the fact to the Contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the foreclosing of the work.

**21. Recovery from Contractor:**

Whenever under the contract, any sum of money, shall be recoverable from or payable by the Contractor, the same may be deducted from or any sum then due or which at any time thereafter may become due to Contractor under the contract or under any other contract with BHEL or from his Security Deposit unless the contractor pays the claim on demand.

**22 Post- Technical Audit of Work and Bills:**

BHEL reserves the right to carry out the post-payment Audit and technical examination of the work and final bill including all supporting vouchers, abstracts etc., and enforce recovery of any sum becoming due as a result thereof in the manner provided in the presiding sub- paragraphs. However, no such recovery shall be enforced after three years of passing the final bill.

**23. Refund of Security Deposit:**

The Security Deposit may be refunded to the Contractor after completion of the contract provided, after the Contractor shall first have been paid the last and final bill and have rendered a "NO DEMAND CERTIFICATE".

**24. Force Majeure Clause:**

If, at any time during the continuance of this Contract the performance in whole or in part by either party of any obligations under this Contract shall be prevented or delayed by reason of any War, Hostile acts of the public enemy Civil Commotion, Epidemics, or Acts of God (Floods, Storm/Cyclone, Hurricane, Earthquake etc.) then provided notice of happening of any such event is given by either party to other within 7 days from the date of occurrence thereof neither of the parties shall by reason of such event be entitled to terminate this Contract or claim for damages against the other in respect of such non-performance or delay for such

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

period. Performance under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event, claims for extension of time may be granted for periods considered reasonable by the respective area **HOD** at his discretion subject to prompt notification by the contractor.

## **25. Arbitration:**

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration of an arbitrator appointed by Head of the BHEL Tiruchirappalli.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Tiruchirappalli (the place from which the contract is issued)

The cost of arbitration shall be borne as per the award of the Arbitrator. Subject to the arbitration in terms of Clause above, the Courts at **Tiruchirappalli** (the place where the Principal Civil Court having ordinary original civil jurisdiction to decide questions forming subject matter of the arbitration is located) shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner except where the contract has been terminated by either party in terms of this contract.

## **In case of contract with Public Sector Enterprises (PSE) or a Government Department, the following shall be applicable**

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred by either Party for arbitration to the sole arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the Parties to the dispute, provided, however, any Party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties hereto finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

## **26. JURISDICTION:**

In case of any suit or other legal proceedings arising under or relating to this Contract, the courts at Trichy, Tamil Nadu only shall have the Jurisdiction and is only after exhausting the, Arbitration, Clause 25.

**27 SECRACY OF CONFIDENTIAL INFORMATION:**

The Contractor undertakes and agrees that he/it will not disclose or reveal in part or full the proprietary/confidential information, which terms shall mean and include patents, trademarks, service marks, registered designs, copyright, design rights, know-how, confidential information, trade and business names and any other similar protected information of BHEL received during negotiation or currency of the contract to any third party or governmental authorities without written permission from BHEL. In the event of termination or expiry of the contract, the contractor shall return all proprietary/confidential information to BHEL. This clause shall survive termination or expiry of the contract.

BHEL reserves the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc., if the contractor is found guilty / wrong usage of the documents given by BHEL for any unauthorised activity.

**28. SIGNING OF CONTRACT**

Each contract document shall be signed by the Contractor with his usual signature. Contract by partnership or Hindu Joint Family firm, may be signed in the FIRM'S name by the Managing Partner or all /one of the Partners on behalf of the firm or the Karta or Manager for HUF as the case may be. Contract by a Company shall be signed with the name of the Company from a person authorised in this behalf and a Resolution or power of attorney or other satisfactory proof, showing that the person signing the Contract documents on behalf of the Company is duly authorised to do so, shall accompany the contract.

**29 FRAUD PREVENTION POLICY**

The Bidder along with its associate / collaborators / sub – vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about fraud or suspected fraud as soon as it comes to their notice”.

Fraud Prevention policy and List of Nodal Officers shall be hosted on BHEL website, vendor portals of Units / Regions intranet.

**30. SUSPENSION OF BUSINESS DEALINGS WITH SUPPLIERS / CONTRACTORS:**

Penal action can be initiated on the suppliers / Contractors in line with extant ‘Guidelines for Suspension of Business Dealings with Suppliers/ Contractors. The abridged version of extant ‘Guidelines for suspension of business dealings with suppliers/ contractors’ has been uploaded on <http://www.bhel.com> on “supplier registration page”.

**31. RISK PURCHASE:**

a) In the event of any successful Tenderer’s failure to fulfil any of the tender / Contract obligations as per Contract / Agreement, BHEL may entrust the job to alternate vendor and get it completed to meet the BHEL requirement and additional expenditure, if any, including consequential cost viz., demurrage etc., will be fully recovered from the Contractor who failed to complete the job in line with the Contract.

b) The decision of BHEL with regard to the actual losses / consequential expenditure incurred by BHEL shall be final and binding on the Contractor.

The value under Risk purchase clause shall be calculates as follows:

$$\text{Risk \& Cost Amount} = [(A-B) + (A \times H/100)]$$

Where,

A= Value of Balance scope of Work/ Supply (\*) as per rates of new contract

B= Value of Balance scope of Work/ Supply (\*) as per rates of old contract being paid to the contractor/ supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor shall be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

\*(Balance scope of work/ supply)

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for ‘Termination of Contract’, shall be taken as balance scope of Work/ Supply for calculating risk & cost amount.

**In case vendor fails to fulfil any of the tender / Contract obligations as per Contract / Agreement, contract shall be cancelled and SD shall be forfeited**

### **32. NOTICES OF ACCIDENTS**

In the event of an accident the Contractor shall be required to fill injury report and submit to the Engineer in charge immediately and ensure compliance of ESI / Workmen's Compensation of accident as per the Act. The Contractor shall get the Contract personnel engaged by him insured under workmen's compensation policy from any Insurance company in India before actually starting the work. The Insurance Coverage should be for the entire period of Contract. The Contractor shall comply with the provisions of the Workmen's Compensation Act 1923. (This should be read in connection with the provisions of ESI Act.)

### **33. DAMAGE & LOSS TO PRIVATE PROPERTY & INJURY TO WORKMEN**

The Contractor shall at his own expense reinstate and make good to the satisfaction of the respective area **HOD** and pay compensation for any injury, loss or damage occurred to any property or rights whatever including property and rights of BHEL (or agents) servants or employee of BHEL, the injury loss or damage arising out of or in any way in connection with the execution or purported execution of the contract and further the contractor shall indemnify BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL, in respect of any such injury (including injury resulting in death) loss or damage to any person whomsoever or property including all claims which may arise under the Employees Compensation Act or otherwise.

"BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life / permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below.

- a) Victim: Any person who suffers permanent disablement or dies in an accident as defined below.
- b) Accident: Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the manufacturing/operation and works incidental thereto at BHEL factories/offices and precincts thereof, project execution, erection and commissioning, services, repairs and maintenance, trouble shooting, serving, overhaul, renovation and retrofitting, trial operation, performance guarantee testing undertaken by the company or during any works/during working at BHEL Units/Officers/townships and premises/Project sites
- c) Compensation in respect of each of the victims:
  - (i) In the event of death or **permanent disability** resulting from **Loss of both limbs**: Rs 10,00,000/- (Rs Ten lakh)
  - (ii) In the event of **others permanent disability**: Rs.7,00,000/- (Rs. Seven Lakh)
- d) Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to section 2 (I) of the Employee's Compensation Act,1923"

### **34.Preference to Make in India:**

"For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017 & 28.05.2018 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if it is issued after this NIT but before finalization of contract / PO / WO against this NIT. In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and / or local content in respect of this procurement, same shall be applicable.

**PART-I (TECHNO COMMERCIAL BID)**

**ANNEXURE-ID**

**SPECIAL TERMS & CONDITIONS OF CONTRACT**

**1. PARTICIPATION.**

1. The Parties who have been suspended or black listed or issued with "Show Cause Notice "by BHEL Trichy-14 or any other BHEL Unit will not be allowed to participate in the Tender.
2. Other than the bidder None of its group concerns or affiliates etc. are participating in the tender either directly or indirectly through any other agency under same proprietor / common director(s) / common partner(s).
  - a. The bidder should declare the same in the Tender. Even during the course of evaluation / finalization of Tender if it is found that some of the parties are not fulfilling the above clauses, BHEL will not consider them for further participation in the Tender.

**2. EVALUATION CRITERIA:**

1. Technical Bids of tenderers will be evaluated based on the Pre-Qualification/Technical Eligibility Criteria on the basis of supporting documents and track record of the bidder.
2. Price Bids of only those tenderers who are found to meet the Pre-Qualification/Technical Eligibility Criteria will be opened. Price Bids will be opened with prior information to the eligible bidders to facilitate the presence of the bidders or their authorized representatives to witness the Price Bid opening.

**3. CRITERIA FOR AWARD OF WORK:**

1. The evaluation of offer for award of work shall be on the basis of "Total Cost to BHEL/ **Net Cash outflow to BHEL after taking into account applicable Taxes and Duties.**
2. **The work will be awarded on Package Wise L1 basis.**
3. In case there are more than one L1 bidders for respective schedules, BHEL will invite fresh revised price bids from all such L1 bidders & ranking will be decided based on these revised bids. The new rates quoted should be lower than their previous L1 rates. In case if the revised bids submitted by L1 bidders is also same and none of the bidders are ready for further reduction in their rates, then L1 bidder will be selected on draw of lots.
4. The quantity mentioned in BOQ / Price bid is tentative. BHEL reserves the right to increase or decrease the quantity during award of work or issue work order in phase manner as per requirement of BHEL.

**4. METHOD OF EVALUATION OF PRICES**

**Priority / Ranking**

1. Net cash outflow to BHEL including all charges, incidentals etc., inclusive of Goods & Service tax.

**5. RATE FINALIZATION**

1. Lowest prices received against BHEL Tenders need not be the acceptable to BHEL and in that case BHEL would not be considered the same for award of Contract. BHEL would negotiate or re-float the Tender opened if L1 price is not the lowest acceptable price to them inter-alia other reasons.
2. Tenderers are requested to give their best prices at the first instant itself.
3. In the event of the final L1 prices are not reasonable / acceptable to BHEL, BHEL also may resort to short closure of this open Tender.

**6. SPLITTING OF CONTRACT:**

**No splitting of contract is proposed.**

**7. FINALIZATION OF CONTRACT BY ADOPTING "REVERSE AUCTION":**

"BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) instead of opening the e-procurement system (EPS) price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.

Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on [www.bhel.com](http://www.bhel.com)).

The bidders have to necessarily submit online sealed bid less than or equal to their EPS price bid already submitted to BHEL along with the offer. The EPS price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & EPS price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.

If it is found that L1 bidder has quoted higher in online sealed bid in comparison to EPS bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on [www.bhel.com](http://www.bhel.com))."

As a reminder to the bidders, system will flash following message (in RED Color) during the course of 'online sealed bid':

**"Bidders to submit online sealed bid less than or equal to their EPS sealed bid already submitted to BHEL"**

The business rules for Reverse Auction (RA) are as follows:

- a. Technically and commercially acceptable Bidders shall only be eligible to participate in the Reverse Auction.
- b. BHEL shall engage the services of a Service Provider, who shall extend all necessary training and assistance before commencement of ON-LINE-BIDDING through Internet, at NO extra-cost to the Bidders.
- c. Eligible Bidders shall be informed in writing, about the details of Service Provider, to enable Vendors to contact the Service Provider and get trained.
- d. Event Date, Time, Start Price, Bid Decrement, Time-Extensions, etc. shall also be communicated through the Service Provider for compliance by Bidders.
- e. Vendors have to FAX the Compliance Form, before start of RA. Without furnishing the above Compliance Form, Bidders shall not be eligible to participate in the RA.
- f. BHEL shall provide the calculation sheet through the Service Provider, which shall be helpful to arrive at "TOTAL COST to BHEL", like Packing and Forwarding Charges, Taxes and Duties, Freight Charges, Insurance, Service Tax and other loading factors (for non-compliance to BHEL Standard Commercial Terms and Conditions), for each of the Bidder, to enable them to fill in the price and keep it ready for inputting data during the RA.
- g. RA shall be conducted on a pre-determined Date and Time.
- h. At the end of RA, the lowest Bid Value will be known on the Network.
- i. Lowest Bidder has to FAX the Prescribed Format, duly filled in and signed in, as provided, on a case-to-case basis, to the Service Provider, within 24 Hours of RA without fail.
- j. Any variation between the ON-LINE Bid Value and the signed document will be considered as unethical the Tender process and will invite disqualification of Bidder, for further business dealings with BHEL as per the prevailing procedure.
- k. The H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

Name of Works: **WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER  
NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-TRICHY**

Enquiry No.: **BHEL-TRY/ WCM/9472000042 / 03.06.2020**

**PART-I (No Deviation Certificate)**

**ANNEXURE-A**

**Note: The following Declaration to be typed on the contractor's Letter Head, duly signed & stamped and to be attached along with your Technical bid of the tender.**

**Name of Works: WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER  
NANO COATING SOLUTION OVER THE SURFACE OF SOLAR PANELS AT BHEL-  
TRICHY**

**Enquiry No: BHEL-TRY/ WCM/9472000042 / 03.06.2020**

I/We M/s. ....  
have read and clearly understood all the Terms and conditions in Tender Schedule of and accordingly  
accept the same without any deviation what so ever.

- *I/ We unconditionally agree to all the tender conditions and no new conditions are imposed by us in the technical / price bid. I understand in the event of imposing any condition in the technical / price bid, such condition would be ignored by BHEL and only the prices will be considered for the purpose of evaluation"*
- *I/ We confirm that none of our group concern or affiliates etc., appears on the list of banned firms / companies by BHEL (list available on [www.bhel.com](http://www.bhel.com)) nor any of the Director / Partner / proprietor of bidder / such group concern or affiliate etc. are involved with such company.*
- *I/ We also declare that, we have not been suspended or black listed or issued with Show Cause Notice by BHEL- Trichy or any other BHEL Unit or any PSU/ Government organization.*
- *I/ We confirm that other than us, none of our group concerns or affiliates etc. are participating in the tender either directly or indirectly through any other agency under same proprietor / common director(s) / common partner(s).*
- *I/ We confirm that if any of the above statement / information furnished by us in this tender is found to be false/ fake at any stage of tender evaluation or during execution of contract, BHEL will have the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc. as deemed fit.*

(Contractor Signature with Seal)

**Annexure-B**

**To THE PURCHASE/CONTRACT EXECUTING AGENCY/BHEL ACCEPTANCE FOR ELECTRONIC FUND  
TRANSFER / RTGS TRANSFER**

|    |                                                 |                                |
|----|-------------------------------------------------|--------------------------------|
| 1  | NAME & ADDRESS OF THE SUPPLIER / SUB-CONTRACTOR |                                |
| 2  | VENDOR CODE assigned by BHEL                    |                                |
|    | <b><u>Details of Bank Account:</u></b>          |                                |
| 3  | NAME & ADDRESS OF THE BANK                      |                                |
| 4  | NAME OF THE BRANCH                              |                                |
| 5  | BRANCH CODE                                     |                                |
| 6  | MICR CODE                                       |                                |
| 7  | ACCOUNT NUMBER                                  |                                |
| 8  | TYPE OF ACCOUNT                                 | CURRENT A/C / OD / CASH CREDIT |
| 9  | BENEFICIERY'S NAME                              |                                |
| 10 | IFSC CODE OF THE BRANCH                         |                                |
| 11 | EMAIL ID                                        |                                |
| 12 | TELEPHONE/MOBILE NO.                            |                                |

**CERTIFICATE** I / We hereby agree to receive the payments due from BHARAT HEAVY ELECTRICALS LIMITED by the National Electronic Funds Transfer and/or RTGS Transfer mode by credit to my / our above mentioned Bank Account. I / We also agree that payments made to the above mentioned Account is a valid discharge of the liability of Bharat Heavy Electricals Limited. I / We also agree to bear the applicable Bank Charges for the above mode of transfer. **A copy of the cheque leaf/cancelled cheque leaf of the above account is sent herewith.**

**AUTHORISED SIGNATORY WITH NAME SEAL**

**Banker's Certification**

We confirm that we are enabled for receiving RTGS and NEFT credits and we further confirm that the account number of \_\_\_\_\_ (name of account holder), the signature of the authorized signatory and the MICR and IFSC codes of our Branch mentioned above are correct.

PLACE:

(Manager / Officer's)

DATE:

Signature Under Bank stamp and Name Seal

With Membership No.

(Telephone / Mobile No. \_\_\_\_\_)

Forwarded to Accounts Dept. We confirm the above details are verified with the records available with us.

Signature of the BHEL Executive with Name Seal (Operating the Contract/Services)

**EMD PAYMENT WIDE E-COLLECT**

This explains how to make Payments to BHEL- Tiruchirapali and through SBI-Ecollect. Vendors (EMD and SD Payments payable by others) can utilise this facility. Payments can be made using Internet Banking, Debit Cards/Credit Cards etc. SBI Charges a minimum amount (Service Charge) for every transaction. This may vary according to the MODE selected.

**STEP BY STEP PROCEDURE:**

Login to <https://www.onlinesbi.com>

1. Select State Bank Collect available on the top ( pre login page )
2. Accept the terms and conditions and click "PROCEED"
3. Select State "TAMILNADU "and Institution type "INDUSTRY ".
4. Select "BHEL TRICHY under "INDUSTRY".
5. In the next page, Select APPROPRIATE category, fill details correctly & click "SUBMIT".
6. If all details entered are correctly populated, click "CONFIRM "to proceed.
7. Make payment as per your convenience. (Options available are payment of fees through SBI Net Banking, State Bank ATM cum Debit Cards / Other Bank Debit / Credit Cards and through SBI Branches).
8. SAVE & Keep the copy of receipt for future reference.

**HOW TO TAKE RECEIPT FOR A PAYMENT MADE, EVEN ON A LATER DATE:**  
(PLEASE CHECK THE STATUS BEFORE MAKING PAYMENT SECOND TIME)

1. Login to [www.onlinesbi.com](http://www.onlinesbi.com)
2. Select State Bank Collect available on the top ( pre login page )
3. Accept the terms and conditions and click "PROCEED"
4. Select "PAYMENT HISTORY "option available on the left side of screen.
5. Using two options as mentioned below, you can get the receipt :
  - a. Type the same Date of Birth, Mobile Number which you have entered at the time of making payment through SB collect. Select the date range and submit.
  - b. If you know the payment reference number, then enter the Reference number (DU...) along with anyone information (Date of Birth / Mobile number, which you have entered at the time of making payment). Select the date range and submit.
6. In the next page, take print out of receipt.

**Annexure-II**

**PART-II (PRICE BID)**

**(FOR REFERENCE ONLY)**

| SN | Item Description                                                                                                                                       | Lump sum Value in ₹<br>(Excluding GST)                      | GST %                                    |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------|
| 1  | <b>WORKS CONTRACT FOR SUPPLY, APPLICATION AND PROVE OUT OF THIN LAYER NANO COATING SOLUTION OVER THE SURFACE OF 2,496 SOLAR PANELS AT BHEL-TRICHY.</b> | Vendor to quote the lump sum value in e-procurement portal. | Vendor to quote in e-procurement portal. |

**(VENDOR SHALL QUOTE THE RATES / OFFER VALUE ONLY IN e-PROCUREMENT PORTAL)**