

BHARAT HEAVY ELECTRICALS LIMITED,  
(A Government of India Enterprises)  
Heavy Plates & Vessels Plant  
Visakhapatnam – 530 012 INDIA.  
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**NOTICE INVITING TENDER( NIT)**

**Category of Tender: TWO BID  
(PRICED + UN - PRICED)**

**SUB: Design, Manufacture, Supply, Erection, Testing  
and Commissioning of 2.5MVA Transformer**

Our Ref: **MM/2/10/3502/CAP/W-159/5159**

**DATE: 24.01.2014**

Sealed quotations in duplicate are invited from suppliers on or before **19.02.2014** **SUPERSCRIBING OUR REFERENCE AND CATEGORY OF TENDER** on the cover, for supply of the under mentioned stores within the above due date, otherwise send **REGRET LETTER**, strictly subject to the Terms & Conditions attached herewith.  
**LATE TENDERS ARE NOT ACCEPTABLE.**

| ITEM No. | DESCRIPTION / SPECN. / SIZE  | QTY           |
|----------|--|---------------|
| 1.       | Design, Manufacture, Supply, Erection, Testing and Commissioning of 2.5MVA Transformer   | <b>1 Nos.</b> |
|          | <b>Encl:</b><br><br><b>1. Qualifying Criteria PART A</b> ..... <b>3 Pages</b><br><b>2. Technical Specifications PART B</b> ..... <b>11 Pages</b><br><b>3. General Terms/ commercial terms and conditions</b> ..... <b>9 Pages</b><br><b>(INCLUDING CHECK LIST)</b> |               |

**For BHARAT HEAVY ELECTRICALS LIMITED,**

**For Sr. MANAGER (MM)**

**SECTION – I: QUALIFYING CRITERIA**

The BIDDER has to compulsorily meet the following requirements to get qualified for considering the technical offer:

| <b>Sl. No.</b> | <b>REQUIREMENTS</b>   | <b>Vendors offer</b> |
|----------------|---|----------------------|
| 1              | Only those vendors ( <b>OEMs</b> ), who have designed, manufactured , supplied and commissioned at least <b>FIVE Transformers of minimum 2000KVA</b> in the past ten years and such equipment is presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender) should quote. |                      |
|                | Bidders who are not OEMs shall submit a letter from the OEM, indicating the bidder as authorized agency for supplying and servicing the quoted equipment.   |                      |
|                | <b>The vendor should submit following information where similar transformer has been supplied for qualification of their offer.</b>   |                      |
| 1.1            | Commissioning report of at least one installation shall be furnished.   |                      |
| 1.2            | Name and postal address of the customer or company where similar equipment is installed.  |                      |
| 1.3            | Name and designation of the contact person of the customer.   |                      |
| 1.4            | Phone, FAX no and email address of the contact person of the customer.  |                      |
| 1.5            | Month and Year of commissioning of the equipment.   |                      |
| 1.6            | Application for which the equipment is supplied   |                      |
| 1.7            | BHEL, HPVP reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false / incorrect, the offer shall be rejected.   |                      |
| 2              | <b>DELIVERY</b> - The bidder shall quote the best possible delivery. However the delivery shall not exceed 03 months with an additional grace period of 01 month. The delivery period shall be reckoned from date of purchase order to despatch from the vendor works.  |                      |

Deepak Deb  
Convenor

P. K. Das  
Member

Prasenjit Jana  
Member

V. Umamaheswar Rao  
Member

S.C. Pasha  
Chairman

**SECTION – II**

The BIDDER / VENDOR are requested to provide the following information:

| <b>Sl. No.</b> | <b>REQUIREMENTS</b>   | <b>Vendors offer</b> |
|----------------|---|----------------------|
| 3              | The BIDDER/VENDOR to furnish Reference List of Customers, with full address, details of contact person, where such Transformers have been supplied in the past. |                      |
| 4              | Details of such Transformers have been supplied to other BHEL units, if any. (Year of commissioning)  |                      |
| 5              | Details on SERVICE-AFTER-SALES Set-Up in India including the Address of Agents / Service Centres in South India.  |                      |
| 6              | Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.   |                      |

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**SECTION – III**

The BIDDER to note:

| <b>Sl. No.</b> | <b>REQUIREMENTS</b>  | <b>Vendors offer</b> |
|----------------|--|----------------------|
| 7              | The BIDDER / VENDOR shall submit the offer in TWO PARTS.<br>1. Technical Offer [with PART A & PART B] & commercial offer<br>2. Price Bid.  |                      |
| 8              | The Technical Offer shall contain a comparative statement of Technical <b>Specifications demanded by BHEL, HPVP and Offer Details submitted by the Bidder</b> , against each clause.<br>A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement where specific details are required may lead to disqualification of the Technical Offer. |                      |
| 9              | The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought-Out-Items with copies of Product Catalogue to the extent possible.   |                      |
| 10             | The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price - Bid, for confirmation.   |                      |

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**TECHNICAL SPECIFICATION FOR SUPPLY OF GENERATOR TRANSFORMER**

**Name of the Work:** Design, Manufacture, Supply, installation, testing and commissioning of 415V/11KV,YNd1,2500KVA oil filled Transformer.

| Sl. No. | Description  | Vendors offer     |
|---------|--|-------------------|
| 1.0     | <p>The rating of the station transformer shall be <b>2500KVA, 415V/11000V, 50Hz, 3 Phase, Mineral Oil Immersed Generator Step-Up</b> transformer. The transformer shall be outdoor type with ONAN cooling system. The transformer shall be connected on the 11KV side to an 11KV HT switchboard through XLPE cable and 415 V side to generator outgoing through bus duct.</p> <p>Capacity (KVA) 2500<br/>                     Nominal secondary Voltage Rating (V) 11,000<br/>                     Maximum System Voltage (V) 12,000<br/>                     Nominal primary Voltage (V) 415<br/>                     Frequency 50Hz +/-3%<br/>                     Vector Group YNd1<br/>                     Phases 3<br/>                     Painting : Epoxy<br/>                     Colour : Shade 632 as per IS : 5<br/>                     Duty : continuous<br/>                     Minimum guaranteed efficiency include of all tolerances : 99.5% at 75% load at 0.8pf<br/>                     Type of cooling ONAN<br/>                     Outdoor/ Indoor Type Outdoor<br/>                     Impedance Voltage (%), at Nominal Tap 5.75<br/>                     Fault Level (MVA) 500<br/>                     Rated Lighting impulse withstand voltage Medium voltage winding (KV peak) 75<br/>                     Rated Power Frequency Withstand Voltage (r.m.s) (kV) 28<br/>                     Thermal Class Insulation H<br/>                     Termination: High Voltage Cable box<br/>                     Low Voltage Bus duct Tap changer: Tap Changer Type On load Tap Changer</p> | Vendor to Confirm |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| Sl. No.    | Description   | Vendors offer     |
|------------|---|-------------------|
| <b>2.0</b> | <b>CODES AND STANDARDS</b>  |                   |
| <b>2.1</b> | The equipment shall comply with the latest edition of the following and other relevant Indian Standards /Manual:<br>IS:335 - Insulating oil<br>IS:1271 - Thermal evaluation and Classification of electrical insulation.<br>IS:2026 - Power transformers<br>IS:2099 - Bushing for Alternative voltages above 1000 V.<br>IS:2705 - Current transformers.<br>IS:3347 - Dimensions for porcelain Transformer Bushings<br>IS:3637 - Gas operated reclays.<br>IS:3639 - Fitting & accessories for power transformers<br>IS:4201 - Application guide for CTs.<br>IS:6600 - Guide for loading of oil immersed transformers<br>IS:8478 - Application guide for ON -load tap changers<br>IS:8468 - On- load tap changers (Amendment 1)<br>IS:13947 - LV switchgear and control gear -part 1 General rules<br>- CBIP Manual on Transformers | Vendor to Confirm |
| <b>2.2</b> | In case of imported equipment, standards of the country of origin   | Vendor to Confirm |
| <b>2.3</b> | The equipment shall also conform to the provisions of Indian Electricity rules and any other statutory regulations Currently in force in the country.   | Vendor to Confirm |
| <b>2.4</b> | In case Indian standards are not available for any equipment, standards issued by IEC / BS / VDE / IEEE / NEMA or equivalent agency shall be applicable.  | Vendor to Confirm |
| <b>3</b>   | <b>Operating Conditions</b>   |                   |
|            | The transformer shall be suitable for continuous outdoor operation in tropical latitudes with the following atmosphere conditions:  |                   |
| <b>3.1</b> | Altitude: 1000 metres above sea level   | Vendor to Confirm |
| <b>3.2</b> | Humidity: Heavy humidity of up to 93%.  | Vendor to Confirm |
| <b>3.3</b> | Ambient temperature of 35 Deg C, temperature variations (+45 Deg C max. and 15 Deg C min.)  | Vendor to Confirm |
| <b>3.4</b> | The transformer shall be connected to a generator and thus shall be designed and manufactured to withstand load rejection conditions as specified in IS2026/IEC 60076-1.  | Vendor to Confirm |

| <b>Sl. No.</b> | <b>Description</b>   | <b>Vendors offer</b> |
|----------------|--|----------------------|
| <b>3.5</b>     | At full load and maximum ambient temperature, the oil temperature should not exceed 90 Deg C.  | Vendor to Confirm    |
| <b>3.6</b>     | The transformer shall have a nameplate as specified in IS2026/IEC 60076  | Vendor to Confirm    |
| <b>4</b>       | <b>Connections</b>   |                      |
| <b>4.1</b>     | The station transformer shall be wound in Star/Delta configuration according to IEC Vector reference YnD1, with an On-Load Tap Changer on the HV side.   | Vendor to Confirm    |
| <b>5</b>       | <b>Transformer Winding</b>   |                      |
| <b>5.1</b>     | <b>Core Material</b>   |                      |
| <b>5.1.1</b>   | The magnetic circuit shall be of low loss, cold rolled, grain oriented high grade steel.   | Vendor to Confirm    |
| <b>5.2</b>     | <b>Winding Insulation</b>  |                      |
| <b>5.2.1</b>   | The insulation on the winding shall be class H as defined in IS2026/IEC 60076.   | Vendor to Confirm    |
| <b>6</b>       | <b>Voltage Tappings</b>  |                      |
| <b>6.1</b>     | The HV winding shall have a nominal rating of 11KV while the LV winding shall have a rating of 415V.   | Vendor to Confirm    |
| <b>6.2</b>     | The voltage variations of the tap changer shall be of Constant Flux Voltage Variation category as defined in IEC 60076 -1. There shall be no current limitation due to tap variations.   | Vendor to Confirm    |
| <b>6.3</b>     | The tapping shall be carried out by an on-load tap-changer, with local and remote control facilities.  | Vendor to Confirm    |
| <b>6.4</b>     | Tap position indication should be clearly visible from ground level and should have a provision for remote tap changer position indicator.   | Vendor to Confirm    |
| <b>6.5</b>     | The manufacturer shall provide a remote tap position indicator, indicating the selected tap position and the corresponding HV nominal voltage.   | Vendor to Confirm    |
| <b>7</b>       | <b>LV and HV Terminations</b>  |                      |
| <b>7.1</b>     | The transformer LV and HV windings shall be brought out separately through bushings in accordance with BS 137. The HV terminals shall be labeled as 2U, 2V, and 2W while the LV terminals shall be labeled as 1u, 1v, and 1w.  | Vendor to Confirm    |
| <b>7.2</b>     | The HV bushing shall be of the outdoor type mounted on the transformer top cover in order to be connected with XLPE cable.   | Vendor to Confirm    |
| <b>7.3</b>     | For the HV bushings, the air clearances shall be so coordinated that the probability of the flashover from the terminal of one winding to the terminal of another winding is negligible. The creepage distance of the bushings must not be less than 20mm/kV based on the highest operating phase-to-phase voltage. The HV bushings shall also have arcing horns suitable for the protection of the transformer. | Vendor to Confirm    |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| Sl. No. | Description   | Vendors offer     |
|---------|---|-------------------|
| 7.4     | The LV terminals shall be brought out through the tank top cover of the transformer and shall be enclosed in a terminal box for connecting to bus duct with required provision for connection. The LV terminals shall be projected from the tank body to allow for connection of bus duct for top entry.  | Vendor to Confirm |
| 7.5     | Air clearance on the LV terminals shall be observed as specified in IS 2026/ IEC 60076.   | Vendor to Confirm |
| 7.6     | First filling of oil. Shall be included in scope of vendor.   | Vendor to Confirm |
| 7.7     | For HV XLPE Cables and MV PVC Power/control cables double compression cable glands and crimped type tinned copper cable lugs shall be supplied. Gland plate shall be removable type. The head-room available between cable gland plate and terminals shall not be less than 600mm for cable upto 11 kV. Cable box and disconnecting chamber shall be air insulated.   | Vendor to Confirm |
| 7.8     | Cable box shall be weatherproof to IP-55. For fixed portion of cable box, inspection cover with lifting handle shall be provided.   | Vendor to Confirm |
| 7.9     | Terminal chamber for bus-duct termination shall have a gasketed cover plate bolted to it and shall be weatherproof to IP-55. A separate inspection cover with lifting handle shall be provided the facilitate connection and inspection. Phase sequence of the bus bars shall be as specified in the data sheets.   | Vendor to Confirm |
| 7.10    | Marshalling box shall be mounted on transformer and shall be weather proof to IP-5. All protective devices and neutral CTs shall be wired by means of PVC insulated copper conductor armoured cables upto the marshalling box. Terminals shall be clamp type. Removable gland plate with double compression type glands shall be provided. Lamp with switch & socket shall be provided in the marshalling box. Preferably, marshalling box shall be located on the front side of transformer. | Vendor to Confirm |
| 7.11    | For transformers having provisions for terminating TPN bus duct on the 415V side, neutral of the star connected primary winding shall be brought out to a primary terminal chamber. A CT shall be mounted (if specified) on the neutral terminal with CT secondary wired up to the marshalling box.   | Vendor to Confirm |
| 7.12    | A separate neutral bushing shall be provided for neutral earthing of transformers. The neutral CT shall be mounted as below:-<br>a) CT for 51G shall be located in the earth path after bifurcation of neutral.<br>b) CT for 64 R can be located before bifurcation of neutral.<br>Supporting arrangement for GI strip/cable as applicable shall be provided for connection of neutral bushing to earth/NGR.  | Vendor to Confirm |

| Sl. No. | Description   | Vendors offer     |
|---------|---|-------------------|
| 8       | <b>On Load Tap Changer</b>  |                   |
| 8.1     | High speed on load tap changing gear with minimum 6 number of steps shall be provided and mounted on the transformer. The OLTC gear shall have diverter resistance and the current diverting contacts shall be housed in a separate oil chamber segregated from the main tank of the transformer. The contacts shall be accessible for inspection and their tips shall be replaceable. OLTC oil chamber shall have oil filling, drain sampling facility. it shall be provided with oil level indicator, connection orifies, valves and silica gel breather shall be provided.   | Vendor to Confirm |
| 8.2     | OLTC shall be provided with local and remote controls.  | Vendor to Confirm |
| 8.2.1   | <p><b>Local Control</b></p> <p><b>Manual Mechanical control</b></p> <p>The cranking device for operation of the OLTC gear shall be removable and located at a height not exceeding 1500m above ground level for operation. The mechanism shall be complete with normal accessories including at least the following:-</p> <ul style="list-style-type: none"> <li>– A mechanical tap position indicator (Rated tap voltages shall be marked on the diagram plate).</li> <li>– A mechanical operation counter.</li> <li>– Mechanical stops to prevent over cracking of the mechanism beyond extreme tap positions.</li> </ul> <p><b>Electrical Control</b></p> <p>Control circuit shall incorporate the following:</p> <ol style="list-style-type: none"> <li>I. local/remote manual electrical operation.</li> <li>II. Device to ensure a positive and full completion of tap change once it is initiated even if there is loss of power.</li> </ol> |                   |
|         | <ol style="list-style-type: none"> <li>III. An interlock to cut -off electrical control automatically upon recourse begin taken to manual mechanical control in emergency.</li> <li>IV. Electrical interlock to cut-off a counter impulse for a reverse tap change, being initiated during a progressive tap change and until the mechanism comes to rest and resets circuits for a fresh operation .</li> <li>V. All auxiliaries and devices for electrical control of OLTC gear should be housed in a weather-proof cabinet mounted on the transformer and shall include: <ul style="list-style-type: none"> <li>– Local tap position indicator</li> <li>– 5 digit operation counter.</li> <li>– Cubicle lighting</li> </ul> </li> </ol>  | Vendor to Confirm |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| Sl. No.                          | Description   | Vendors offer     |
|----------------------------------|---|-------------------|
| <b>8.2.1</b><br><b>(Contd..)</b> | <ul style="list-style-type: none"> <li>– Thrmostatically controlled space heater</li> <li>– Miniature circuit breaker with magnetic and thermal overload devices for controlling the incoming supply to the OLTC motor.</li> <li>– Padlocking arrangement for the hinged cabinet door.</li> <li>– Removable plate with cable glands.</li> <li>– Inside tag with control scheme indelibly marked.</li> </ul> |                   |
| <b>9</b>                         | <b>ACCESSORIES</b>  |                   |
| <b>9.1</b>                       | The following accessories shall be provided as a minimum:   |                   |
| <b>9.2</b>                       | Rating plate  | Vendor to Confirm |
| <b>9.3</b>                       | Terminal marking plate  | Vendor to Confirm |
| <b>9.4</b>                       | Two earthing terminals  | Vendor to Confirm |
| <b>9.5</b>                       | De-hydrating breater  | Vendor to Confirm |
| <b>9.6</b>                       | Conservator (For transformer rated 50 KVA and above, for rated voltage 11 KV and all ratings above 11 KV)   | Vendor to Confirm |
| <b>9.7</b>                       | Air release Device (for transformers with conservator)  | Vendor to Confirm |
| <b>9.8</b>                       | Oil filling hole with cover   | Vendor to Confirm |
| <b>9.9</b>                       | Oil Level indicator with minimum marking  | Vendor to Confirm |
| <b>9.10</b>                      | Thermometer pocket  | Vendor to Confirm |
| <b>9.11</b>                      | Dial type thermo meter with contacts for OTI & WTI  | Vendor to Confirm |
| <b>9.12</b>                      | Oil temperature indicator   | Vendor to Confirm |
| <b>9.13</b>                      | Winding temperature indicator (for transformers of rating 500 KVA and above)  | Vendor to Confirm |
| <b>9.14</b>                      | Pressure relief valve   | Vendor to Confirm |
| <b>9.15</b>                      | Sampling valve  | Vendor to Confirm |
| <b>9.16</b>                      | Conservator drain valve   | Vendor to Confirm |
| <b>9.17</b>                      | Top oil filter valve  | Vendor to Confirm |
| <b>9.18</b>                      | Drain cum bottom filter valve   | Vendor to Confirm |
| <b>9.19</b>                      | Double float Buchholz relay   | Vendor to Confirm |
| <b>9.20</b>                      | Separate neutral bushing outside terminal box with connector assembly   | Vendor to Confirm |
| <b>9.21</b>                      | Inspection cover  | Vendor to Confirm |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| <b>Sl. No.</b> | <b>Description</b>   | <b>Vendors offer</b> |
|----------------|--|----------------------|
| <b>9.22</b>    | Terminal box.  | Vendor to Confirm    |
| <b>9.23</b>    | Marshalling box (IP -55)   | Vendor to Confirm    |
| <b>9.24</b>    | Lifting lugs   | Vendor to Confirm    |
| <b>9.25</b>    | Jacking lugs   | Vendor to Confirm    |
| <b>9.26</b>    | Cross channels with towing lugs  | Vendor to Confirm    |
| <b>9.27</b>    | Conservator shall be complete with oil filling plug and cap, oil drain valve, oil level guage in addition to magnetic oil level guage. A flexible oil resistance air bag shall be provide for conservator. Air bag shall be designed to withstand repeated expansion and contraction dues to changes in oil level.   | Vendor to Confirm    |
| <b>9.28</b>    | Pressure relief valve (PRV) shall be provided with alarm contact.  | Vendor to Confirm    |
| <b>9.29</b>    | Thermometer pocket for thermometer shall be provided.  | Vendor to Confirm    |
| <b>9.30</b>    | Seperate buchholz relay shall be provided for main tank and OLTC chamber. This shall be double float type for the main tank with seperate normally open trip and alarm contacts. For the OLTC chamber he relay shall be of single float type or oil surge relay with one trip contact. isolating valve shall be provided on either side of the relay and distance piece shall be supplied.   | Vendor to Confirm    |
| <b>9.31</b>    | Oil temperature indicator shall be 150mm dial type with two normally contacts for tripping, alarm and starting/stopping of cooling fan motors. It shall be provided with maximum reading pointer.  | Vendor to Confirm    |
| <b>9.32</b>    | Winding temperature indicator shall have normally open contacts one each for tripping, alarm and starting /stopping of cooling fan motors. It shall be provided with maximum reading pointer.  | Vendor to Confirm    |
| <b>10</b>      | <b>INSPECTION AND TESTING</b>  |                      |
| <b>10.1</b>    | Owner's representative shall be given free access in the works from time to time for stage wise inspection and progress reporting. Four weeks advance notice shall be given to witness the final routine test as per IS:2026 and other tests as agreed upon. These tests shall be performed on the complete assembly at manufacturers works. Test certificates duly signed by owners representative shall be issued as part of final document.   | Vendor to Confirm    |
| <b>10.2</b>    | Routine Tests: Routine tests as per IS:2026 shall be carried out.  | Vendor to Confirm    |
| <b>10.3</b>    | Additional Tests   | Vendor to Confirm    |
| <b>10.4</b>    | Oil leakage Test- all tanks and oil filled compartments shall be tested for oil tightness by being completely filled with air/oil of a viscosity not greater than that of insulating oil to IS:335 at an ambient temperature and subjected to a pressure equal to the normal pressure plus 35 kN/m <sup>2</sup> measured at the base of the tank. This pressure shall be maintained for a period of not less than 12 hours for oil and 1 hour for air, during which time no leakage shall occur. | Vendor to Confirm    |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| <b>Sl. No.</b> | <b>Description</b>  | <b>Vendors offer</b> |
|----------------|---|----------------------|
| <b>10.5</b>    | Vacuum test - One transformer tank of each size shall be subjected to the vacuum gauge pressure 68 kN/m <sup>2</sup> (500mm of Hg). The permanent deflection of flat plates after the vacuum has been released shall not exceed 5mm without affecting the performance of the transformer. | Vendor to Confirm    |
| <b>10.6</b>    | All routine and acceptance tests shall be carried out at manufacturer's work under his care and expense   |                      |
| <b>10.7</b>    | Vendor to furnish QAP for approval after clear P.O.   |                      |
| <b>10.8</b>    | Certified reports of all the tests carried out at the works shall be furnished in three copies.   |                      |
| <b>11</b>      | <b>PERFORMANCE</b> :  |                      |
| <b>11.1</b>    | (For ONAN rating of Transformer) Losses shall be inclusive of positive tolerance and shall be at nominal tap  | Vendor to Confirm    |
| <b>11.2</b>    | No load losses at:<br>100%V<br>110%V  | Vendor to specify    |
| <b>11.3</b>    | F.L. Copper losses at 75°C  | Vendor to specify    |
| <b>11.4</b>    | Auxiliary losses  | Vendor to specify    |
| <b>11.5</b>    | No load current at :<br>100%V<br>110%V  | Vendor to specify    |
| <b>11.6</b>    | Efficiency at full load at 75°C :<br>At 0.8 Power factor.<br>At 1.0 power factor.   | Vendor to specify    |
| <b>11.7</b>    | Efficiency at 1/2 load at 75°C :<br>At 0.8 Power factor.<br>At 1.0 power factor.  | Vendor to specify    |
| <b>11.8</b>    | load at which max. Efficiency occurs :% load  | Vendor to specify    |
| <b>11.9</b>    | Percentage regulation at 75°C :<br>At 1.0 Power factor<br>At 0.8 Power factor   | Vendor to specify    |
| <b>12</b>      | <b>CONSTRUCTION FEATURES</b>  |                      |
| <b>12.1</b>    | Location of terminals :   | Vendor to specify    |
| <b>12.2</b>    | Primary :   | Vendor to specify    |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| <b>Sl. No.</b> | <b>Description</b>   | <b>Vendors offer</b> |
|----------------|--|----------------------|
| <b>12.3</b>    | secondary :  | Vendor to specify    |
| <b>12.4</b>    | Location of neutral CT :   | Vendor to specify    |
| <b>12.5</b>    | Pressure relief valve : Yes  | Vendor to specify    |
| <b>12.6</b>    | OLTC :   |                      |
| <b>12.6.1</b>  | Location : Separate tank/Separate chamber  | Vendor to specify    |
| <b>12.6.2</b>  | Accessories : Single float Buchholz relay/OSR`   | Vendor to specify    |
| <b>13.0</b>    | <b>MECHANICAL DATA</b>   |                      |
| <b>13.1</b>    | Core & Winding wt. :   | Vendor to specify    |
| <b>13.2</b>    | Tank & Fittings wt. :  | Vendor to specify    |
| <b>13.3</b>    | Radiator without oil wt. :   | Vendor to specify    |
| <b>13.4</b>    | Total wt. :  | Vendor to specify    |
| <b>13.5</b>    | Total quantity of oil : ltrs.  | Vendor to specify    |
| <b>13.6</b>    | Quantity of oil in Radiators : ltrs.   | Vendor to specify    |
| <b>13.7</b>    | Quantity of oil in OLTC chamber :  | Vendor to specify    |
| <b>13.8</b>    | Overall dimensions LxBxH :   | Vendor to specify    |
| <b>14</b>      | <b>PACKING AND DESPATCH</b>  |                      |
| 14.1           | All the equipment shall be divided into several shipping sections for protection and ease of handling during transportation. The equipment shall be properly packed for selected mode of transportation i.e. by ship/rail or trailer. The panels shall be wrapped in polyethylene sheets before being placed in wooden crates /cases to prevent damage to the finish. Crates /cases shall have skid bottoms for handling. Special precaution notations such as 'Fragile', 'This side up', 'Centre of gravity', 'weight', Owner's particulars, Purchase order number etc. shall be clearly marked on the package together with other details as per purchase order. The equipment may be stored outdoors for long periods before installation. The packing should be suitable for outdoor storage in areas with heavy rains and high ambient temperature unless otherwise agreed. | Vendor to Confirm    |
| <b>15</b>      | <b>DOCUMENTATION :</b>   |                      |
| 15.1           | Three sets of following documents (Hard copies) and a soft copy in English language shall be supplied along with the transformer.  | Vendor to Confirm    |
| 15.2           | O & M manuals.   | Vendor to Confirm    |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| <b>Sl. No.</b> | <b>Description</b>   | <b>Vendors offer</b> |
|----------------|--|----------------------|
| 15.3           | Detailed Maintenance manual with all drawings of Electrical / circuit diagrams. All mechanical Assembly/ Sub Assembly Drawings shall be supplied with the part list also in English (3 sets).          | Vendor to Confirm    |
| 15.4           | Electrical schematic wiring diagram (3 sets).  | Vendor to Confirm    |
| 15.5           | The following documents shall be supplied along with the equipments:   | Vendor to Confirm    |
|                | (a) Operational manual.  |                      |
|                | (b) Electrical/Mechanical maintenance of the transformer/OLTC.   |                      |
|                | (c) Electrical / Electronic maintenance and trouble shooting.  |                      |
| <b>16</b>      | <b>GUARANTEE</b>   |                      |
| 16.1           | Guarantee for complete machine and all supplied accessories / attachments / equipments / items for 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier. | Vendor to Confirm    |
| 17             | <b>SPARES:</b> Vendor should quote for 02 years operational spares separately with price break up.   | Vendor to Confirm    |
|                | 1. Dehydrating Silica Gel breather. : 01   |                      |
|                | 2. Plain oil level gauge. : 01   |                      |
|                | 3. Conservator with oil filling hole : 01  |                      |
|                | 4. Air release plug. : 01  |                      |
|                | 5. Explosion vent with diaphragm. : 01   |                      |
|                | 6. Top & Bottom oil filter valve with plug. : 02   |                      |
|                | 7. On Load Tap Changer : 01  |                      |
|                | 8. Thermometer pockets : 02  |                      |
|                | 9. LV termination suitable for bus duct. : 01  |                      |
|                | 10. Double float buchholz relay with alarm & trip contact. : 01  |                      |
|                | 11. 6" dial type OTI with alarm & trip contact. : 01   |                      |
|                | 12. 6"dial type WTI with alarm & trip contact. : 01  |                      |
|                | 13. Jacking pads. : 01   |                      |
|                | 14. Marshalling box with internal wiring. : 01   |                      |
|                | 15. Additional neutral for separate earthing. : 01   |                      |
|                | 16. Bi directional rollers : 04  |                      |
|                | 17. RTCC Panel with AVR : 01   |                      |
|                | 18. 11KV Bushing ----- 1no   |                      |
|                | 19. 415V Bushing----- 1no..  |                      |

**TRANSFORMER TECHNICAL SPECIFICATION (PART B)**

| <b>Sl. No.</b> | <b>Description</b>  | <b>Vendors offer</b> |
|----------------|---|----------------------|
| <b>18</b>      | <b>ERECTION ,TESTING &amp; COMMISSIONING</b>  |                      |
| 18.1           | Charges, duration, terms & conditions for Erection, Testing &Commissioning should be furnished in detail separately by vendor along with offer.   | vendor to Confirm    |
| 18.2           | The vendor shall bring special tools and equipment required for installation of the transformer. Necessary tools like Torque Wrench, Spanners, Keys, multimeters, megger etc. for operation and maintenance should be supplied. List of such tools should be submitted with offer | vendor to Confirm    |

**COMMERCIAL TERMS AND CONDITIONS FOR SUBMISSION OF OFFER****1.0 QUOTATIONS**

Bidders shall submit the offer in TWO INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.

**Envelope I:** This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked “**Part I – Technical and Un-priced commercial bid**” Indicating Tender No., Due Date and Address & Reference of the Bidder.

**Envelope II:** This sealed envelope should contain price details this envelope should be clearly marked “**Part II - Price bid**” indicating Tender No., Due Date and Address & Reference of the Bidder.

Both the envelopes (Part I & II) shall be put in one cover, duly sealed, super scribing as Part I and Part II of Tender No., due date of opening and the address and reference of the Bidder

The above offer should reach this office on or before the due date by 14.00 Hrs (IST)  
Tender should not be addressed to any Individuals name but only designation to

**Sr. Manager (MM)**  
**BHARAT HEAVY ELECTRICALS LIMITED**  
**HEAVY PLATES & VESSELS PLANT**  
**VISAKHAPATNAM - 530 012 (A P), INDIA.**

Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in ENGLISH and accompanied by technical literature catalogue and detailed dimensional drawings in ENGLISH or otherwise the offers will not be considered.

**2.0 PART I (TECHNICAL & UN-PRICED COMMERCIAL BID)****2.1 Technical**

This part shall include / indicate the following:

- 2.1.1. Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.
- 2.1.2. Point by point confirmation for the Technical Specification enclosed is to be provided. If there are any deviations the same should be clearly specified. Offers received without conformation to our specification will be rejected.
- 2.1.3. List of customers to whom same or similar equipment have been supplied along with performance certificates to be enclosed.
- 2.1.4. Relevant catalogue to be attached.
- 2.1.5. List of spares parts (with part numbers) for two years operation and maintenance should be attached.

2.1.6. Information on shipping weight and cubage (length, width & height) to be provided

2.1.7. In case of foreign bidder offer, the Principal's technical offer only should be enclosed.

## 2.2 Un-Priced Commercial

This part shall include / indicate the following

2.2.1. Port of shipment / Station of dispatch

2.2.2. Terms of payment

2.2.3. FOB/FCA price along with freight charges up to Chennai port (for foreign bidders) Ex-works/FOR Dispatch Station price along with freight charges up to BHEL Visakhapatnam (for Indian bidders)

2.2.4. Taxes, Service tax & duties including Cess applicable.

2.2.5 Delivery Schedule

2.2.6. Filled-in check list to be enclosed

2.2.7. Offer validity

2.2.8. Country of origin

2.2.9. Percentage of agency commission if any along with a copy of Agency agreement The FOB/FCA/CFR Prices quoted shall include the agency commission.

2.2.10. A copy of "Un-Priced Part II 'i.e., a copy of the Price Bid without the price details to be enclosed.

2.2.11 BHEL Visakhapatnam is eligible for availing CENVAT / VAT credit on both inputs and capital inputs. The suppliers invoice should separately indicate the amount of duty / taxes and should invariably mention the following details:

1. The Central excise registration number, range division and commission rate of the supplier's jurisdiction.
2. The rate of duty and 8 digit central excise tariff heading of the item supplied.
3. The TIN, VAT, CST registration number of the supplier.

The duplicate copy of the invoice is required for availing CENVAT credit and original copy for availing VAT credit, if purchased within the state.

In case of foreign bidders the duplicate copy of the electronic Bill of Entry along with TR6 challan should be made available for availing CENVAT credit on CVD, Cess (S) and SAD.

## 3.0 **PART II (PRICE – BID)**

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part-I

## 4.0 **OPENING OF TENDERS**

The Part I – Technical & un-priced commercial bid alone would be opened on the Tender opening date.

The Part II – Price bid of technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the Price Bid opening date. Clarifications if any required by BHEL Visakhapatnam FOR Technical evaluation / commercial evaluation would be sought from Bidders before opening of Part II – price bid.

### GENERAL

5.1 Incomplete offers will not be considered.

5.2 **Fixed priced:** Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order A bid submitted with an adjustable price will be treated as non- responsive and rejected Prices shall be written in words and figures. In the event of difference, the price in words shall be valid and binding. Unit prices shall be considered correct in the event of any discrepancy with regards to total price.

5.3 **Bid currency:** Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their home currency, which should be clearly indicated in the un-priced commercial bid as well as in the price bid. Price bid opening date/ RA date will be considered as effective date for considering exchange rate to evaluate the offers.

- 5.4 **Terms of Delivery:** Bidders are required to quote their best delivery period. Foreign Bidders should submit their offer for net FOB/ FCA – Nearest Sea Port / Air Port as well as CFR / Chennai Seaport/ Airport. Freight charges up to Chennai port to be indicated separately. Indian Bidders should submit their offer for Dispatching station as well as FOR BHEL Visakhapatnam basis. Freight charges from works to BHEL Visakhapatnam to be indicated separately. Delivery from the date of Letter of Intent to be mentioned in the offer.
- 5.5 **Taxes and Duties:** All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST & TIN No/ Tariff No. etc, failing which the purchaser will not be liable for payment of such Taxes and Duties (Our TIN No.28280189432, APGST No. VSP/04/1/1023 dated 24.08.1968. CST No.VSP/04/1/1012 dated 24.08.1968 & BHEL Visakhapatnam ECC No AAA CB 7076 N-XM001. Assessment circle Visakhapatnam.)
- 5.6 **Validity:** The offers for main equipment and spares shall be kept open for acceptance for a period of 120 days (one hundred and twenty days) from the dates of opening of the tender (part I)
- 5.7 **Terms of Payment:**
- 5.7.1 **Indian Bidders:**  
80% payment (80% of basic price + 100% Taxes) will be made within 45 days of receipt of material and balance 20% will be made after acceptance of material/commissioning of the equipment at BHEL, Visakhapatnam and on submission of Performance Bank Guarantee
- 5.7.2 **Foreign Bidders**  
An Irrevocable letter of Credit shall be established for 80% of FOB/FCA/CFR/ (excluding Indian Agent's commission) 2 months prior to shipment and valid for 3 months for negotiation against shipment Letter of Credit shall be opened through a branch of State Bank of India in the country where order shall be placed. In case, in the country where order is placed, State Bank of India is not there, Letter of Credit will be confirmed by foreign banker. Balance 20% of FOB/FCA/CFR value shall be paid through sight draft on Commissioning & acceptance of the equipment at BHEL Visakhapatnam, against submission of 10% performance bank guarantee. All Bank charges outside India are to supplier's account. Lump sum erection and commissioning charges if any, shall be payable after satisfactory erection & commissioning of the equipment by sight draft against certificate issued by the competent authority.
- 5.7.3 **Common to both India & Foreign Bidders.**  
Erection & Commissioning (E&C) charges will be released after deduction of Income Taxes as per the Govt. of India rules. The TDS certificate will be issued by BHEL. Applicable service tax on E&C charges will be payable extra. The liability of depositing the same to the Govt. will be of the supplier.
- 5.7.4 **Loading criteria common to both Indian and foreign bidders:** Vendor should accept the payment terms specified above. However for any deviation to the payment terms offered with reference to the above criterion will be loaded with prime lending rate of SBI prevailing on date of opening of price bid + 2%, which shall be computed for the differential period between BHEL Visakhapatnam terms of payment and the offered basic price.
- 5.8 DUNS number (allotted by M/s. DUN & Bradstreet) shall be mentioned in your offer.
- 5.9 **Guarantee:** The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier.  
**Offers from vendors not accepting to the requested guarantee period will be rejected.**

- 5.10 **Contract Execution Bank Guarantee (CEBG):** The successful tenderer shall furnish a Bank Guarantee from any Nationalized Bank for 5% of Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) confirming that the order will be executed as per the terms and conditions and this should be valid till final dispatch date (LR/GR/BL/AWB) with additional 2 months claim period. Letter of Credit will be processed only after receipt of CEBG. The CEBG is to be furnished within 3 weeks from the date of Purchase order.  
**Offers from vendors not accepting to submit CEBG will be rejected.**
- 5.11 **Performance Bank Guarantee (PBG):** The supplier shall furnish a Bank guarantee from any Indian Nationalized Bank approved by BHEL Visakhapatnam in the format, given by BHEL Visakhapatnam along with purchase order for 10% of the Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) valid for period of guarantee with additional claim period of 2 months.  
**Offers from vendors not accepting to submit PBG will be rejected.**
- The CEBG & PBG shall be obtained from any Indian Nationalized Bank/ Scheduled Commercial Banks.
- 5.12 **Liquidated damages:** Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional penalty at the rate of ½% of the value of goods for each week of delay subject to a maximum of 10% of the Purchase Order value.
- 5.12.1 **Loading Criteria for Liquidated Damages:** Any deviation from above LD Clause to the extent for which LD is not agreed by the vendor i.e., differential % value will be loaded on basic price, e.g. If some vendor agrees for say maximum of 6% LD then his price will be loaded by 4% (10 – 6) of his quoted basic price.
- 5.13 **Risk purchase:** If the supplier fails to deliver the goods within the delivery specified in the Purchase Order, BHEL Visakhapatnam will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the delivery period mentioned in the Purchase Order.  
**Offers from vendors not accepting the above Risk Purchase terms will be rejected.**
- 5.14 **Indian Agent & Agency commission:** An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The FOB/FCA/CFR price quoted by the Foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the offer. This will be paid by BHEL Visakhapatnam in India Rupees, on satisfactory commissioning & acceptance of the equipment. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished along with offer. For calculation of Rupee equivalent of Agency Commission exchange rate as prevailing on the date of Purchase Order will be taken.
- 5.15 **Short shipment / Warranty replacement:** In case of any short shipment in the main equipment / spares, customs duty levied on such supplies, shall be borne by the supplier. Any warranty replacement during the warrantee period shall be on FOR, BHEL Visakhapatnam, basis.

- 5.16 **Inspection & Testing:** All goods shall be subject to inspection by BHEL Visakhapatnam or its authorized representatives at supplier's works or at BHEL Visakhapatnam stores. The supplier will not charge for the facilities provided for inspection of goods. In case of machine tools the machine would be inspected and proved at supplier's works prior to dispatch however, final inspection and acceptance of the machine will be carried after installation of the machine at BHEL, Visakhapatnam.
- 5.17 **Operating and Maintenance manuals:** The Bidders shall clearly mention in their offer that Operating Maintenance Manuals as called for in the Technical Specification in the required number of copies will be provided.
- 5.18 **Cenvat & VAT credit. (for Indian Bidders only):** The quotation must indicate Tariff item number and rate of Excise Duty applicable. The original Excise Duty Gate Pass will be required to be furnished in case charges to us. If the bidder is availing Cenvat credit for his input materials, the effect of proforma credit should be passed on to the purchaser.
- 5.19 **Packing:** The Supplier shall arrange for packing suitably in all respects considering the peculiarity of the material involves for normal transport by sea / air / rail road and suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports.
- 5.20 **Salient Points of HSE** (Health, Safety & Environment) that are to be considered while submissions of offer are:
- 5.20.1 Consumption benchmarks related to output shall be provided wherever applicable for key input resources (energy/fuels/chemicals)
- 5.20.2 Competency requirements for operation, maintenance and calibration, if any, shall be communicated
- 5.20.3 If any Hazardous chemicals as per MSIHC (Manufacturing, Storage and import of Hazardous Chemicals) Rules 1989/94/2000 are used, the MSDS shall be provided, along with on site & OFF site emergency plan (as applicable).
- 5.20.4 The noise level at operator level shall be within 90 DbA
- 5.20.5 OH&S (Occupational Health and Safety) control measures for safe working of machine as applicable shall be specified
- 5.20.6 The machine/equipment shall be fitted with guard for rolling and moving parts and shall comply with applicable OH&S legislations and Factories Act 1948
- 5.20.7 The supplier shall submit the layout drawing of operating controls, displays etc and operating instructions to enable ergonomics evaluation and approval
- 5.20.8 The recommended PPE (Personal Protective Equipment) for the equipment shall be furnished
- 5.20.9 Alarm System (both visual and audible) and Automatic switch off of the equipment shall be provided for any intrusion, overloading, short circuiting or any malfunctioning of the equipment.
- 5.20.10 Details of all hazardous / harmful substances discharges as by-products / wastes during operations of the machine / equipment, such as fumes, gases, dust particles, aerosols UV./IR (Ultra violet / Infra red) radiations, etc shall be furnished, along with their concentrations and their TLV, (Threshold Limit Value)

- 5.20.11 Appropriate pollution control measures shall be proposed to keep the emissions from the machinery / processes within the prescribed limit as stated in Environment Protection Rules 1986.
- 5.20.12 All furnaces, process units, DG sets, paint booths, shot blasting chambers, etc shall be provided with stack(s) of sufficient height as per guidelines laid down in the Environment Protection Rules 1986.
- 5.20.13 wherever industry specific standards are not available for control of pollutants, general emission standards shall be used
- 5.20.14 Chemicals banned due to their negative impact on the environment shall not be used on the process
- 5.20.15 Fuels with sulphur content less than 0.05% shall be proposed.
- 5.20.16 Details regarding nature of waste generated and appropriate disposal practices available shall be provided, along with the operation procedure of the plant / process.
- 5.20.17 Hazardous chemicals and flammable substances shall be transported only through authorized transporters and all safety practices as laid down in applicable legislative requirements such as Central Motor Vehicle Rules, Manufacture, Storage and Import of Hazardous Chemical 1989, etc. shall be followed.
- 5.20.18 Primary materials used in the equipment shall be specified and they shall be eco - friendly.
- 5.21 Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHEL Visakhapatnam).
- 5.22 BHEL Visakhapatnam also reserves its right to allow to the Public Sector Enterprises ordering and price preference facilities as admissible under the existing policy.
- 5.23 BHEL Visakhapatnam reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at another project / unit.
- 5.24 BHEL Visakhapatnam shall be at liberty to reject or accept any tender, part or in full, at their own discretion and any such action is not liable for any question or claim against BHEL Visakhapatnam.
- 5.25 BHEL Visakhapatnam reserves the right to go for a Reverse Auction (RA) instead of opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions governing RA are given below.

**GENERAL TERMS AND CONDITIONS OF RA (REVERSE AUCTION)**

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications. BHEL Visakhapatnam may resort to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING ON INTERNET.

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. BHEL Visakhapatnam will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
3. BHEL Visakhapatnam will inform the vendor in writing in case of reverse auction, the details of service provider to enable them to contact & get trained.

4. Business rules like event date, time, start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
  5. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.
  6. BHEL Visakhapatnam will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL Visakhapatnam like Packing & Forwarding charges, taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL Visakhapatnam standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
  7. Reverse auction will be conducted on scheduled date & time.
  8. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
  9. The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL Visakhapatnam through Service provider within 24 hours of Auction without fail.
  10. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL Visakhapatnam as per prevailing procedure.
  11. In case BHEL Visakhapatnam decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL Visakhapatnam shall be opened as per BHEL Visakhapatnam's standard practice.
- 5.26 **Force Majeure clause:** If at the 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, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events) then provided notice of happening of any such events is given by either party to other within twenty one days from the date of occurrence thereof neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events 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 or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

**CHECK LIST**

Bidder's acceptance to BHEL Visakhapatnam's Standard Commercial Terms & Conditions.

**Applicable for Indian bidders**

(To be submitted along with the offer – please do not change the format)

| <b>BHEL Visakhapatnam Tender No: &amp; Date:</b>  | Bidders Confirmation / response |
|---|---------------------------------|
| Prices have been quoted on "FIRM PRICE" basis only (Yes / No)   |                                 |
| Prices have been quoted on "F.O.R BHEL Visakhapatnam" basis only (Yes / No)   |                                 |
| <b>P &amp; F (Please confirm whether included or not)</b>   |                                 |
| <b>Freight (Please confirm whether included or not)</b>   |                                 |
| <b>Insurance (Please confirm whether included or not)</b>   |                                 |
| Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – <b>please Specify</b> )  |                                 |
| <b>Sales Tax (please Specify)</b>   |                                 |
| <b>Excise Duty (please Specify)</b>   |                                 |
| Delivery period from the date of Purchase Order ( <b>please Specify</b> ). A loading @ ½ % of the Purchase Order value per week will be done for the grace period requested. For evaluation 4 weeks will be considered as one month. Vendors quoting a delivery period beyond the 'the requested delivery plus the allowed grace period' is liable for rejection. |                                 |
| Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 10%) (Yes / No)   |                                 |
| Risk Purchase as per clause 5.13 (Yes / No)<br><b>(Offers from vendors not accepting the Risk Purchase terms will be rejected)</b>  |                                 |
| Payment terms (As per Clause No. 5.7.1) (Yes / No)  |                                 |
| Contract Execution Bank Guarantee (CEBG) as per Clause 5.10 (Yes / No)<br><b>(Offers from vendors not accepting to submit CEBG will be rejected)</b>  |                                 |
| Performance Bank Guarantee (PBG) as per Clause 5.11 (Yes / No)<br><b>(Offers from vendors not accepting to submit PBG will be rejected)</b>   |                                 |
| Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier) (Yes / No)<br><b>(Offers from vendors not accepting to the guarantee period will be rejected)</b>   |                                 |
| <b>Inspection (please Specify the Place of Inspection)</b>  |                                 |
| Erection & Commissioning/ Installation/ Training<br><b>(Please confirm whether charges are included in the total cost or not)</b>   |                                 |
| Approximate Net Weight of the total Consignment   |                                 |
| Approximate Gross Weight of the total Consignment   |                                 |

**Signature & Office Seal of the bidder**

**CHECK LIST**

Bidder's acceptance to BHEL Visakhapatnam 's Standard Commercial Terms & Conditions.

**Applicable for foreign bidders** (To be submitted along with the offer – please do not change the format)

| <b>BHEL Visakhapatnam Tender No: &amp; Date:</b>   | Bidders Confirmation / response |
|--|---------------------------------|
| Prices have been quoted on "FIRM PRICE" basis only (Yes / No)  |                                 |
| Prices basis (FOB/CFR/CIF – <b>Please Specify</b> )  |                                 |
| Insurance ( <b>Please confirm whether included or not</b> )  |                                 |
| Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – <b>please Specify</b> )   |                                 |
| Currency in which quoted ( <b>please Specify</b> )   |                                 |
| Port of loading ( <b>please Specify</b> )  |                                 |
| Country of Origin ( <b>please Specify</b> )  |                                 |
| Delivery period from the date of Letter of Intent ( <b>please Specify</b> ) A loading @ ½ % of the Purchase Order value per week will be done for the grace period requested. For evaluation 4 weeks will be considered as one month. Vendors quoting a delivery period beyond the 'the requested delivery plus the allowed grace period' is liable for rejection. |                                 |
| Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 10%)   |                                 |
| Risk Purchase as per clause 5.13 ( <b>Offers from vendors not accepting the Risk Purchase terms will be rejected</b> ) (Yes / No)  |                                 |
| Payment terms (As per Clause No. 5.7.2)  |                                 |
| Agency commission (refer clause 5.14)  |                                 |
| Contract Execution Bank Guarantee (CEPG) as per Clause 5.10 (Yes / No) ( <b>Offers from vendors not accepting to submit CEBG will be rejected</b> )  |                                 |
| Performance Bank Guarantee (PBG) as per Clause 5.11 (Yes / No) ( <b>Offers from vendors not accepting to submit PBG will be rejected</b> )   |                                 |
| Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier). ( <b>Offers from vendors not accepting to the requested guarantee period will be rejected</b> ) (Yes / No)  |                                 |
| Inspection ( <b>please Specify</b> )   |                                 |
| Erection & Commissioning/ Installation/ Training ( <b>Please confirm whether charges are included in the total cost or not</b> )   |                                 |
| Dimension of the Largest Part ( <b>please Specify</b> )  |                                 |
| Packing Schedule (No of containers and their Sizes) ( <b>please Specify</b> )  |                                 |
| Approximate Net Weight of the total Consignment ( <b>please Specify</b> )  |                                 |
| Approximate Gross Weight of the total Consignment ( <b>please Specify</b> )  |                                 |

**Signature & Office Seal of the bidder**