

**General Note: BHARAT HEAVY ELECTRICALS LIMITED**

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( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

PHONE : 2577645  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail :  
Web :


429-002/A

|   |                       |                     |                               |
|---|-----------------------|---------------------|-------------------------------|
| <b>OFFICE COPY</b>  | <b>Collective No.</b> | <b>Enquiry Date</b> | <b>Due Date For Quotation</b> |
|   | 2691300065            | 28.05.2013          | 17.06.2013                    |
| Please quote Enquiry No, Date and due date in all correspondences.<br>This is only a request for quotation and not an order |                       |                     |                               |

| Item | Description  | Unit | Quantity | Delivery Quantity | Schedule Date |
|------|--|------|----------|-------------------|---------------|
| 10   | <p>PART B<br/>PORTABLE ADVANCED ULTRASONIC TESTING EQUIPMENT (PHASED ARRAY AND TOFD) WITH SCANNERS, PROBE AND ACCESSORIES.<br/>1.0 PURPOSE:<br/>The equipment is proposed to perform phased array ultrasonic testing (PAUT) and Time of flight diffraction (TOFD) to detect planar/volumetric defects in welds of pressure vessels, piping, castings and forgings of Power plant components.<br/>2.0 SCOPE OF SUPPLY<br/>2.1 EQUIPMENT:<br/>Portable advanced ultrasonic testing equipment to perform phased array ultrasonic testing (PAUT), Time of flight diffraction (TOFD) and conventional ultrasonic testing. Carry case, protective screen guard, tools and accessories shall be supplied.<br/>The equipment package includes<br/>a. Advanced ultrasonic equipment with features mentioned from s.no 2.1.1 to 2.1.11<br/>b. Post processing device as mentioned in s.no 2.2 and 2.3<br/>c. Scanners, probes and wedges for inspection as mentioned in s.no 2.4<br/>2.1.1 TECHNIQUES:<br/>Equipment shall be compatible, to be used for the following techniques<br/>a. Phased array ultrasonic testing (PAUT)<br/>b. Time of flight diffraction testing (TOFD)<br/>c. Combination of PAUT and TOFD in a single scan.<br/>d. Conventional ultrasonic testing (Pulse echo and Pitch-catch)<br/>2.1.2 PULSER:<br/>a. Number of channel (multiplexing capacity) is not less than 128</p> | NO   | 1.000    | 1.00              | 30.07.13      |

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

  
MANAGER / PURCHASE  
(FOSSIL BOILERS)



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with pulsing capability (Active Aperture)  
of 32 elements at a  
time.

b. Pulse voltage shall be adjustable with  
maximum voltage not less  
than 75 V for phased array and 200 V  
for conventional UT channel

c. Pulse width shall be adjustable from 30  
ns to 500 ns for Phased  
array and 30 ns to 1000 ns for  
conventional UT channel.

#### 2.1.3 RECEIVER:

a. Gain shall be adjustable, with minimum  
of 0 dB to a maximum  
value not less than 80 dB for phased  
array and minimum of 0 dB  
to a maximum value not less than 110  
dB for conventional UT.

b. System bandwidth shall be capable to  
process signals between 0.6  
MHz to 18 MHz for PAUT AND 0.5 TO  
25 MHz for conventional UT.

c. Rectifier shall be adjustable with options  
such as RF, full  
wave, half wave positive and half wave  
negative.

d. Filters shall be adjustable with options  
such as low  
pass ,band pass and high pass filters

#### 2.1.4 MULTIPLE GROUPS:

The equipment shall be capable of  
producing multiple groups  
with number of groups not less than 6, to  
produce Linear beams  
and/or sectorial beams and/or TOFD in a  
single scan.

#### 2.1.5 DISPLAY:

a. The equipment display shall be a colour  
TFT / LCD display with  
minimum resolution of 800 x 600 pixels  
and diagonal display  
length not less than 10 inch.

b. The equipment shall be capable of  
displaying various scans like  
A,B,C and D (TOFD).

c. Customisable weld overlay to assist  
interpretation shall be  
available.

#### 2.1.6 DATA ACQUISITION:

a. Digitizing frequency shall not be less  
than 100 MHz

b. Maximum pulse rate shall not be less  
than 10 kHz (C-scan)

#### 2.1.7 DATA SYNCHRONIZATION:

Capacity to synchronize the data with  
internal clock or encoder  
(2 axes)

#### 2.1.8 SIZING CURVES:

The following sizing curves shall be  
available as a minimum

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a. Distance Amplitude correction ( DAC )  
curve with minimum 16  
points per focal law

b. Time corrected gain ( TCG ) with  
minimum 16 points per focal law

#### 2.1.9 POWER SUPPLY AND BATTERY:

The equipment shall work with an  
AC adapter of 230 Volts AC.

Equipment shall work with battery power  
supply continuously for

at least 6 hours,when main power is  
disconnected.Battery shall be

li-ion battery,chargeable in online or  
offline(using charger).

#### 2.1.10 WEIGHT:

Equipment shall be portable with  
weight less than 7 kg.

#### 2.1.11 DATA STORAGE AND TRANSFER CAPABILITY:

The data shall be saved in data  
storage card in the  
equipment, with provision of data transfer  
to external storage or

data processing device through USB  
connectivity or Ethernet

connection. Cables and ports for data  
transmission through USB and

Ethernet shall be provided along with the  
equipment. In addition,

a USB storage device of minimum of 8GB  
capacity is to be supplied

with the equipment for data transfer.

#### 2.2 DATA PROCESSING DEVICE:

Separate portable device for  
data processing,

analysis and display is to be provided. The  
device shall have a 3rd

generation core i5 processor; 4GB installed  
memory, 15inch TFT

display, 500 GB internal storage space in the  
device with pre-

installed software platform for installing and  
working of the

equipment. The software required for report  
generation shall be

supplied. The software supplied with the  
equipment is to be

compatible with the software platform offered  
in the device. All

software is to be provided as licensed  
versions and no demo/trail

versions will be acceptable. An external  
storage of 1TB is to be

provided along with the device for archival  
and backup. All these

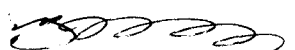
specifications are minimum requirements and  
any feature with a higher

rating will be acceptable if it does not affect  
the satisfactory

functioning of the equipment.

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## 2.3 SOFTWARE REQUIREMENTS:

1. PC based Software to develop scanning technique for PAUT and TOFD inspection of component with custom profile.
2. PC based Data acquisition and analysis software for inspection with following features
  - a. Ability to make data acquisition by synchronizing with equipment mentioned in S.No 2.1 and S. No. 2.2
  - b. Ability to interpret multiple data at a time.
  - c. Ability to interpret multiple scans at a time.
  - d. Ability to make volumetric merge of PAUT data.
  - e. Ability to remove lateral wave in TOFD signals.
  - f. Ability to generate inspection report in customizable format.
3. Software provided should be licensed by the OEM and should be compatible with the equipment as mentioned in S. No. 2.1 and S. No. 2.2.
4. The software updates are to be provided free of cost for at least 2 years from the date of installation.

## 2.4 SCANNERS AND ACCESSORIES FOR INSPECTION

- ### 2.4.1 Scanner to perform Phased array ultrasonic testing and TOFD in tubes/pipes of outer diameter 35 mm to 100 mm with following accessories compatible with the above equipment:
- a. Scanner should have the capability to perform PAUT inspection on both sides of weld as in case of tube to tube butt weld and also from one side of weld as in case of tube to elbow joint.
  - b. A pair of phased array probes of 5 MHz frequency, with active elements not less than 16. Total active aperture size not greater than 10 mm in length and 10 mm in elevation.
  - c. A pair of phased array probes of 7.5 MHz frequency, with active elements not less than 16. Total active aperture size not greater than 10 mm in length and 10 mm in elevation.
  - d. A pair of phased array probes of 10 MHz frequency, with active elements not less than 16. Total active aperture size not greater than 10 mm in length and 10 mm in

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elevation.

e. A Pair of 10 MHz,3 mm element diameter TOFD Probe

f. A pair of 15 MHz,3 mm element diameter TOFD probes.

g. Suitable PAUT wedge pairs to produce refracted shear wave at angles ranges from 45 degree to 70 degree in the above diameter

tubes/pipes using the above PAUT probes. Pairs of curvature wedges to suit the above diameters and flat wedge is to be provided.

h. Suitable PAUT wedge pair for longitudinal wave inspection of the above diameters tubes/pipes using the above PAUT probes. Pairs of curvature wedges to suit the above diameters and flat wedge is to be provided.

i. Suitable TOFD wedges (70 degree and 80 degree longitudinal wave) for inspection of the above diameters tubes/pipes using the above TOFD probes. Pairs of curvature wedges to suit the above diameters and flat wedge is to be provided.

j. Suitable encoder and Pre amplifier for better signal to noise ratio.

k. Compatible cables, connectors and adjustment tools.

2.4.2 Scanner to perform TOFD inspection of plates, with thickness ranges from 13 mm to 300 mm and pipes of outer diameter ranges from 100 mm to 300 mm with following accessories compatible with the equipment

a. Pair of 10MHz, 3mm element diameter TOFD probe

b. Pair of 5MHz, 6mm element diameter TOFD probe

c. Pair of 2.25 MHz, 6 mm element diameter TOFD probe

d. Pair of wedges compatible with above probes to produce 45 degree, 55 degree, 60 degree and 70 degree refracted longitudinal wave for

TOFD inspection of plates and pipes mentioned above.

e. Suitable encoder and Pre amplifier for better signal to noise ratio.

f. Cables, connectors and adjustment tools.

2.4.3 Manual scanner with accessories to perform phased array inspection of plates and pipes with the probes and wedges mentioned below

a. One Pair of Phased array probe with 64

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active elements of 2.25 MHz  
nominal frequency arranged in linear array  
with suitable cable and  
connector compatible with the above  
equipment. Total active  
aperture size shall not be greater than 40  
mm in length and 10 mm  
in elevation. Length of the cable not less  
than 2.5m.

b. One Pair of Phased array probe with 64  
active elements of 5 MHz  
nominal frequency arranged in linear array  
with suitable cable and  
connector compatible with the above  
equipment. Total Active  
aperture size not greater than 40 mm in  
length and 10 mm in  
elevation. Length of the cable not less  
than 2.5m

c. One Pair of Phased array probe with 64  
active elements of 7.5 MHz  
nominal frequency arranged in linear array  
with suitable cable and  
connector compatible with the above  
equipment. Total Active  
aperture size shall not be greater than 40  
mm in length and 10 mm  
in elevation. Length of the cable not less  
than 2.5m

d. One Pair of flat wedge compatible with the  
probes mentioned above  
(s.no 2.4.3.a to 2.4.3.b) to produce  
longitudinal wave at 0  
degree.

e. Pair of flat wedges compatible with the  
probes mentioned above  
(s.no 2.4.3.a to 2.4.3.b) to produce  
refracted longitudinal wave  
in a range of 45 degree to 70 degree (in  
steel).


f. Pair of wedges compatible with the probes  
mentioned above (s.no  
2.4.3.a to 2.4.3.b) to produce refracted  
longitudinal wave in a  
range of 45 degree to 70 degree (in steel)  
with axial curvature to  
match pipes of outer diameter ranges from  
50 mm to 300 mm.

g. One Pair of flat wedge compatible with the  
above probes mentioned  
above (s.no 2.4.3.a to 2.4.3.b) to produce  
refracted shear wave at  
angles in a range of 40 degree to 70  
degree (in steel).

h. Pair of wedges compatible with the above  
probes mentioned above  
(s.no 2.4.3.a to 2.4.3.b) to produce  
refracted shear wave at  
angles in a range of 40 degree to 70  
degree (in steel) with axial

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curvature to match pipe of outer diameter  
ranges from 50 mm to  
300 mm.

i. Suitable encoder, cables and connectors  
compatible with the  
equipment.

### 3.0 TERMS AND CONDITIONS

#### 3.1 Conditions for participation:

a. Manufacturers or their authorized  
distributors are only eligible  
to participate. In case of Authorised  
Distributors/Agents, they  
must enclose tender specific Authorization  
from manufacturers,  
duly mentioning the Tender reference  
number and due date on the  
Authorization certificate.

b. The bidder should have after sales facility  
in India to attend the  
emergency breakdown services at BHEL,  
TRICHY within 2 working days  
from the date of intimation of breakdown.

#### 3.2 Pre-dispatch inspection:

a. Pre-dispatch inspection of the complete  
system by BHEL engineer at  
the manufacturer's location.

b. The expenses towards travel and  
accommodation of BHEL engineer to  
manufacturer's location and back would  
be under BHEL scope.

3.3 Installation and commissioning: The supplier  
shall be responsible  
for

a. Installation and commissioning of the  
system at BHEL, Trichy to  
prove out the system with respect to all  
functions of the system.

b. Providing training to BHEL engineers,  
technicians on the operation  
and maintenance aspects of the system for  
a period not less than 4  
days, excluding the time required for  
Installation and  
commissioning.

c. Two sets of operating manual and system  
maintenance manual shall  
be supplied along with the equipment,  
both as a hard copy and  
softcopy.

d. Equipment and all the probes must be  
calibrated as per applicable  
sections of ASME and the test certificates  
must be supplied with  
the equipment.


e. Facilities required for installation and  
commissioning of the  
system shall be under the scope the  
supplier.

#### 3.4 Warranty:

The manufacturer shall give warranty

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for satisfactory operation of the equipment for a period of 12 months from the date of commissioning of the equipment.

**3.5 Spares:**

a. The spares required for troublefree satisfactory functioning of the equipment for a period of 2 years shall be supplied with the equipment. Details of spares shall be listed in the tender document.

b. The spares and accessories support for the proposed model of equipment shall be ensured by the supplier/dealer for a period of 10 years.

**3.6 Annual maintenance:**

After completion of warranty period, the supplier shall render service support through annual maintenance contract (AMC) for maintenance and calibration of the system for which item wise payment shall be mentioned separately.

**3.7 Packing and delivery:**

Packing and delivery of the total equipment from manufacturer's place to BHEL, Trichy in safe condition without any damage is under the responsibility of the supplier.

ADVANCED ULTRASONIC TESTING EQUIPMENT

**General Note:**

PL. SUBMIT YOUR OFFER ON F.O.R/BHEL-TRICHY (TAMILNADU), INDIA BASIS AND IN TWO PART (TECHNO-COMMERCIAL BID AND PRICE BID)IN A SEPARATE COVER.

IF THE OFFER IS SUBMITTED IN SIGNLE PART AND THE SAME WILL BE LIABLE FOR REJECTION.

ANNEXURE-III ENCLOSED HEREWITH MUST BE FILLED, SIGNED AND SUBMITTED ALONG WITH YOUR OFFER.

**ENCLOSURE :**

1. ANNEXURE - III.
2. QUALIFYING CRITERIA

WE MAY GO FOR REVERSE AUCTION(ONLINE BIDDING)IF REQUIRED FOR THIS TENDER

**Enclosures:**

*LD clause has to be confirmed without fail*

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## **PART-A**

### **QUALIFYING CRITERIA FOR THE SUPPLY OF PORTABLE ADVANCED ULTRASONIC TESTING EQUIPMENT (PHASED ARRAY AND TOFD)**

#### **SECTION I**

*The BIDDER / VENDOR has to compulsorily meet the following requirements to get Qualified for submitting an offer for PORTABLE ADVANCED ULTRASONIC TESTING EQUIPMENT (PHASED ARRAY AND TOFD) WITH SCANNERS, PROBE AND ACCESSORIES.*

*S. No. Requirements Vendor's response.*

*1 The VENDOR shall have a minimum of THREE Years of Continuous Experience in the field of Design, manufacture and supply of PORTABLE ADVANCED ULTRASONIC TESTING EQUIPMENT (PHASED ARRAY AND TOFD).*

*2 Only those vendors, who have supplied, and commissioned at least one such advanced ultrasonic testing system (as indicated in Part B s.no 2.1) for similar applications in the past five years (on the date of opening of Tender) and such machine is presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender), should quote. However, if such machine (s) has/ had been supplied to BHEL, then such machine should be presently working satisfactorily for more than six months after its commissioning and acceptance (on the date of opening of Tender).*

*2.1 The vendor should submit the following information where similar machines have been supplied, for qualification of their offer.*

*2.2 Name and postal address of the customer / company where similar machine is installed.*

*2.3 Name and designation of the contact person of the customer.*

*2.4 Phone, FAX no. and email address of the contact person of the customer.*

*2.5 Month and Year of commissioning*

*2.6 Application for which the machine is supplied.*

*2.7 One Performance certificate from the customers regarding satisfactory performance of machine supplied to them. The certificate should be current and on the letterhead of the Customer. It should contain information regarding model / Size of machine, year of commissioning and performance of M/c.*

*3.0 BHEL 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.*

#### **SECTION # II**

*The BIDDER is expected to give complete details against each clause in the table given below, with additional sheets those may be attached (giving clear reference number) to furnish and cover the requisite details / documents.*

**S.No PARTICULARS VENDOR'S RESPONSE**

4 Profile of the Company bringing-out the years of Experience of the BIDDER in the field of design, manufacture and supply of Advanced Ultrasonic Testing Equipment (Phased Array And TOFD) System

5 Number of Advanced Ultrasonic Testing Equipment (Phased Array And TOFD) System supplied, installed and commissioned till date for Boiler Component inspection (with details on machine type / model, configuration, customer and quantity)

6 YEAR of supply of latest, Advanced Ultrasonic Testing Equipment (Phased Array And TOFD) System for welding applications and the Technical Specifications of the Machine supplied [Details to be furnished]

7 Details on the Firm's Registration and the FINANCIAL STRENGTH of the COMPANY (Balance Sheet for the last 3 years) shall be submitted with the TECHNICAL OFFER

8 Details on International Standards / Design Process Codes followed in Design and Manufacture of the Equipment.

9 Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centers in India. Competency & Experience of the Local Service Agency are to be provided

10 Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.

### **SECTION # III**

The BIDDER has to comply with the following, for accepting the Technical Offer for Scrutiny by the Purchaser:

#### **S.No. REQUIREMENTS VENDOR's RESPONSE**

11 The BIDDER / VENDOR shall submit the offer in TWO PARTS-Technical [with PART A & PART B] & Commercial and Price Bid.

12 The Technical Offer shall be supported by Product Catalogues and description.

13 The Offer shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the Bidder, against each clause. A mere #CONFIRMED# or #COMPLIES# or #YES# or #NO-DEVIATION# or similar words in the technical comparative statement [without any supporting technical write-ups, photos and datasheets] may lead to disqualification of the Technical Offer.

14 The BIDDER / VENDOR shall assure a continuous support for the supply of SPARES and SERVICE for TEN Years, from the date of commissioning of equipment at BHEL Works.

15 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 of the inclusion of all the accessories, tooling, attachments, auxiliary parts, spares, consumables, etc. with the main and basic equipment, to meet the technical specification requirements.

16 Soft copy if any, giving the salient features of the proposed machine with all sub-systems and auxiliaries, and /or showing live-demo of an existing and working machine of similar configuration and capacity may be provided.

17 BIDDER has to indicate the Country of Origin for the supply of equipment.

18 The reference List of Customers shall be accompanied with (Phone Number and E-Mail ID) of the CONTACT PERSON for cross reference by BHEL

*19 In case of preliminary qualification of the offer, on technical grounds, the BIDDER may be called for a detailed technical discussion on the original technical offer at BHEL Works, with a sufficient notice period.*

**SECTION # IV**

**PERFORMANCE CERTIFICATE**

*(On Customer's Letter Head)*

*1. Supplier of the machine :*

*2. Make & Model of the Equipment :*

*3. Month & Year of Commissioning :*

*4. Application :*

*5. Performance of the Machine: (Strike off whichever is not applicable) Satisfactory / Good / Average / Not satisfactory*

*6. Service after Sales : (Strike off whichever is not applicable)  
Satisfactory / Good / Average / Not Satisfactory*

*Date:*

*Signature & Seal of the Authority  
Issuing the Performance certificate*

# **MM : CAPITAL EQUIPMENT**

**Bharat Heavy Electricals Limited, Trichirapalli – 620 014**  
(To be filled and submitted along with Offer)

**BHEL Enquiry No.**

**Date :**

| <b>BHEL Commercial Terms and Conditions for<br/>IMPORT SUPPLIES</b>   | <b>Vendor's<br/>Confirmation /<br/>Comments</b>                  |
|---|--|
| Technical confirmation to BHEL's Specification as called for in BHEL Format shall be furnished. If needed additional sheets shall be used.  | To be furnished along with offer (or) Technical Bid – Part No. 1 |
| <b>Prices shall be quoted item wise</b> only as per the model format enclosed.  |  |
| Prices shall be quoted on <b>"FIRM PRICE"</b> basis only. The prices should be only on FOB/FCA basis inclusive of Packing & Forwarding charges if any.  |  |
| <b>Validity of offer</b> shall be for a minimum period of 120 days from the date of Tender opening  |  |
| <b>Delivery period</b> from the date of Letter of Intent shall be clearly mentioned in the offer.   |  |
| <b>Liquidated damages</b> @ ½% per week subject to a maximum of 15% of the order value shall be applicable for delay in deliveries.   |  |
| <b>Following Risk Purchase clause</b> shall be applicable:<br>The Purchaser at his option 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 time stipulated or if the same were not available, the best and the nearest available substitute therefore. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases. |  |
| <b>Payment terms for Foreign vendor (Principal):</b><br>80% value of the goods will be paid through an irrevocable Letter of Credit established by our bankers. Balance 20% will be paid against acceptance / commissioning of goods for which supplementary invoice and PBG for 10% of total Purchase order value shall be submitted. <b>All bank charges outside India are to vendor's account only.</b>  |  |
| <b>Payment terms for Indian Agent:</b><br>Indian Agency commission, if any, shall be clearly specified in the offer and the same will be paid in Indian Rupees against acceptance / commissioning of the equipment.   |  |
| <b>Erection / commissioning:</b><br>Erection / commissioning shall be done at free of cost.   |  |
| <b>Submission of Performance Bank Guarantee (PBG):</b><br>Vendor should provide a performance bank guarantee(PBG) for 10% of the total Purchase order value valid for a period of 12 months from the date of commissioning (or) 18 months from the date of dispatch <b>whichever is later</b> with an additional claim period of 2 months. This PBG shall form part one of the documents for effecting the balance 20% payment.   |  |
| Part Shipment or Transhipment is not permissible  |  |
| In case of any short shipment in the main equipment / spares, where separate rates are not available in the contract, the customs duty levied on such supplies, shall be borne by the supplier / Indian agent.  |  |
| Any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Trichy basis.   |  |
| Equipment will be inspected and proved at vendor's works prior to dispatch. However final inspection and acceptance of equipment will be after installation at BHEL, Trichy.  |  |
| The equipment shall be guaranteed for a period of 12 months from the date of commissioning.   |  |
| The vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost.   |  |
| <b>Offers</b> should be submitted only in <b>sealed coversuper-scribing clearly the Enquiry reference and due date.</b>   |  |

**NOTE:-**

- It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications & details have been obtained.**
- The prices are to be offered only on FOB/FCA basis, inclusive of Packing & Forwarding charges if any.**
- Your specific acceptance to BHEL Payment terms, LD, Risk Purchase Clause & Submission of PBG for 10% of the order value are essential for consideration of your offer. Other wise your offer is liable for rejection.**

Signature & Office Seal of the vendor

**Bharat Heavy Electricals Limited, Trichirapalli - 620 014**

**MM : CAPITAL PURCHASE**

**(To be filled and submitted along with offer )**

| <b>BHEL Commercial Terms and Conditions for Indigenous Supplies</b>   | <b>Vendor's Confirmation / Comments</b> |
|---|---|
| Technical confirmation to BHEL's Specification as called for in BHEL Format shall be furnished. If needed additional sheets shall be used.  |   |
| Prices shall be <b>quoted item wise only</b> as per the model format enclosed.  |   |
| Prices shall be quoted on " <b>FIRM PRICE</b> " basis only. The prices should be only on <b>F.O.R / Despatching station</b> basis inclusive of <b>Packing &amp; Forwarding</b> charges if any. <b>Applicable % of ED &amp; Sales Tax , Freight &amp; Insurance, Installation &amp; Commissioning Charges should be clearly indicated.</b>   |   |
| <b>Validity of offer shall be for a minimum period of 120 days</b> from the date of Tender opening  |   |
| <b>Delivery period</b> from the date of Letter of Intent / Purchase order shall be clearly mentioned in the offer.  |   |
| <b>Liquidated damages</b> (at % per week subject to a maximum of 15% of the order value shall be applicable for delay in deliveries.  |   |
| <b>Following Risk Purchase clause</b> shall be applicable:<br>The purchaser at his option 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 time stipulated or if the same were not available, the best and the nearest available substitute therefore. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.   |   |
| <b>Payment terms for supply portion:</b> <ul style="list-style-type: none"><li>• 100% payment will be made within 45 to 90 days after receipt and acceptance / commissioning of goods at BHEL. against submission of PBG for 10% of Order value with required validity. (or)</li><li>* 80% value of the goods will be paid within 45 to 90 days against dispatch documents, negotiated through bank. Balance 20% will be paid within 45 to 90 days from the date of acceptance / commissioning of goods against submission of supplementary invoice and also against submission of PBG for 10% of Order value with required validity. <b>All bank charges are to vendor's account only.</b></li></ul> |   |
| <b>Erection / commissioning:</b><br>Erection / commissioning shall be done at free of cost.   |   |
| The equipment shall be guaranteed for a period of 12 months from the date of commissioning.   |   |
| Equipment will be inspected and proved at vendor's works prior to dispatch. However final inspection and acceptance of equipment will be after installation at BHEL, Trichy.  |   |
| The vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost.   |   |
| Any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Trichy basis.   |   |
| <b>Offers should be submitted only in sealed cover super-scribing clearly the Enquiry reference and due date.</b>   |   |

**NOTE:-**

- a) It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications & details have been obtained.
- b) Your offer should be indicating applicable if any P&F Charges, % of ED, Sales Tax -CST or VAT, Service Tax), Freight, Insurance and Installation and Commissioning Charges etc., as per our Price Format.
- c) Your specific acceptance to our Payment terms, LD, Risk Purchase Clause & Submission of PBG for 10% of the order value are essential for consideration of your offer. Other wise your offer is liable for rejection.

Signature & Office Seal of the vendor

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