

Bharat Heavy Electricals Limited, Bhopal

Notice Inviting Tender(NIT)

Tender Notice No. : TTX/CAL/ONSITE/20-21/01

Dated: 26.07.2021

1. Sealed Tenders are invited from NABL Accredited Calibration Agencies or other equivalent calibration agencies whose accreditation is traceable to APLAC (Asia Pacific Laboratory Accreditation Cooperation) or ILAC (International Laboratory Accreditation Cooperation) for **Onsite Calibration of Measuring Instruments of UHV Lab, Instrument Test at BHEL-Bhopal** as per scope described in Annexure '2'. Offer shall be submitted in 2 sealed bids namely Technical Bid & Price Bid. Both the sealed envelopes shall be placed in the third sealed envelope addressed to Tender Room, Ground Floor, Administrative Building, BHEL, Piplani, Bhopal, PIN-462022 General, Technical and Financial Information shall be quoted as per Annexure '4'.
2. Following information shall be written on top of third sealed envelope cover :
 - a. **Tender Notice No. : TTX/CAL/ONSITE/20-21/01 , Date 26.07.2021**
 - b. **"Quotation for Onsite Calibration Test charges of Measuring Instruments of UHV Lab, Instrument Test at BHEL-Bhopal".**
3. The Qualifying Criteria, Scope of Work is as per Annexure 1 & 2 respectively.
4. **Last date and time for submission of tender is 17.08.2021 up to 11.00 AM.**
5. The Technical bid of tender shall be opened on 17.08.2021 at 02.00 PM at Tender Room, Ground Floor, Administrative Building, BHEL, Bhopal.
6. Information regarding qualifying criteria details as per Annexure '1' shall be furnished in offer. Detail information regarding works contract is available in following annexures :
 - a. Annexure '1' : Qualifying Criteria.
 - b. Annexure '2' : Scope of Work & Payment.
 - c. Annexure '3' : Calibration details for Measuring Instruments.
 - d. Annexure '4' : Enquiry Form with Part 1 is Technical Bid and Part 2 is Price Bid in which the General, Technical & Financial Information to be filled by Calibration Agency (**Mandatory**).

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7. All documents submitted shall be signed on each page by the competent authority of calibration agency.
8. Price bid is opened for only those parties who fulfill the requirements of Annexure-1, 2 & 3 of this tender enquiry.
9. Price quoted by the party shall be submitted in sealed envelope in the price bid format i.e. part 2 of Annexure-4. Price shall be clearly mentioned in words and figures. Bid should be free from correction, overwriting, using corrective fluid etc. any interlineation, cutting or overwriting shall be valid only if they are attested under full signature (s) of person (s) signing the bid, else bid shall be liable for rejection. All Overwriting/cutting, etc will be numbered by bid opening officials and announced during Bid opening.
 - (a) If, in the price structure quoted for the required goods/ services/ works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.
 - (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.
 - (d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder within 7 days for which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.
10. The Calibration work will be allotted based on the lowest calibration charges.

In case of course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders. In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/draw of lots, in the presence of the

respective L-1 bidder(s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

11. The tender document can be downloaded from website <https://www.bhel.com/tenders>
12. **Earnest Money Deposit:** NIL as work carried out at BHEL Bhopal works.
13. **Security Deposit:** NIL as work carried out at BHEL Bhopal works .
14. The calibration work will have to be completed within 45 days from date of P.O. placement at the BHEL Bhopal works. Delay in execution of work may cause penalty of 0.5% of contract value per week upto maximum of 10%. If delay is from BHEL due any customer requirement or any other avoidable reason, then there will be no penalty on vendor.
15. Vendor must be capable of doing calibration test of **all 29 instruments** as per Annexure –3. **No part calibration facility from vendor(s) is technically acceptable.**
16. In the event of acceptance of tender and if the agency fails to commence the work within stipulated time frame, BHEL shall be at liberty to stop doing business with the vendor in future and may black list the company. BHEL reserves the right to cancel the order and get the work executed from the alternate source(s) at the Risk and Cost of the Contractor. In such an event, it shall be obligatory on the part of contractor to make good any loss suffered by BHEL.
17. Validity of Tender: The tender must be valid for at least 90 days.
18. The calibration agency shall ensure not to damage/deteriorate the item given to them for calibration. Party may liable to make compensation for damage/deterioration of BHEL items during handling/calibration.
19. The vendor should take safety measures of material & their personnel while performing calibrations.
20. Any untoward accident of employee(s) or equipment(s) of vendor during working period in BHEL Bhopal works, are not liable for compensation from BHEL. This will be the sole responsibility of vendor only.

21. BHEL reserves all right to cancel/reject any part or full tenders without giving any reasons and any prior notice.
22. All disputes arising out of or in connection with the present contract shall be finally settled under the Rules of Arbitration.
23. Notwithstanding anything contained in the contract, neither BHEL nor the Contractor shall be held responsible for total or partial non-execution of any of the contractual obligations, should the obligation become unreasonably onerous or impossible due to occurrence of a 'Force Majeure' which directly affects the obligations to be performed by the BHEL or the contractor; Such events include war, military operations of any nature, blockages, revolutions, insurrections, riots, civil commotions, insurgency, sabotage, acts of public enemy, fires, explosion, epidemics, quarantine restrictions, floods, earthquake, or acts of God, restrictions by Govt. authorities; over which the BHEL or the contractor has no control.

The party claiming to be affected by force majeure shall notify the other party in writing without delay, within two weeks from the occurrence of such situation and on the cessation thereof. Extension of time sought by the contractor along with supporting evidence and so granted by BHEL for the work affected, if any, shall not be construed as waiver in respect of remaining execution. Rescheduling of execution on account of force majeure conditions, if so agreed by BHEL, will not entail the contractor to claim any increase in the price on whatsoever account. Notwithstanding above provisions, BHEL shall reserve the right to cancel the Contract, wholly or partly, in order to meet the overall project schedule and make alternative arrangements. If deemed necessary, BHEL may takeover partly processed work at a mutually agreed price.

In case of any clarification, please feel free to contact.

Manager
TTX Dept
BHEL, Bhopal – 462022
Ph. : 0755-2505092/3092
e-mail: pranay@bhel.in

Qualifying Criterion

S. No.	Criteria	Confirmation by Calibration Agency
1	Calibration agency shall have valid NABL or other equivalent accreditation traceable to APLAC or ILAC.	Complied/ Not Complied
2	The scope of accreditation of calibration agency shall cover all the ranges of instrument/s for which the instrument is to be calibrated and for which the agency submits the offer.	Complied/ Not Complied
3	The bidder should have experience of successfully executing calibrations (NABL or other equivalent accreditation traceable to APLAC or ILAC) during preceding 7 (Seven) years of tender opening date.	Complied/ Not Complied
4	Average annual financial turnover of minimum Rs 3.6 lakhs during last 3(three) financial years. Profit & Loss A/c and/or Balance Sheet to be submitted as proof of Average Annual Turnover.	Complied/ Not Complied
5	P.O. copy along with Completion Certificate/Calibration certificates is required to be furnished to support clause 3. The issued certificate should not be prior to the past 7 years of tender opening date.	Furnished/ Not Furnished
6	The calibration agency shall furnish following details in offer: a. Copy of Scope of Accreditation. b. PAN Number. c. GST Registration Number.	Furnished/ Not Furnished Furnished/ Not Furnished Furnished/ Not Furnished

Note: The above mentioned qualification criterion are not applicable in case of National Physical Laboratory, New Delhi and other NMIs.

Scope of Work and Payment

S. No.	Scope	Confirmation by Calibration Agency
1	Calibration of the following equipment: “Standard CT, Standard Capacitors, Standard VT, Electronic Potential divider (EPD), A(I/V)TTS (Automatic instrument/voltage transformer test system) & Burdens as per Annexure-3” Quantity : 29 Nos.	Complied/ Not Complied
2	The calibration work will have to be completed within 45 days from date of P.O. placement at BHEL Bhopal works. Delay in execution of work may cause penalty of 0.5% of contract value per week upto maximum of 10%.	Complied/ Not Complied
3	All the ranges shall be covered during calibration. Please refer the Calibration accuracy details enclosed in Annexure-3. Should there be any comments or range which are technically not feasible; the same may please be brought out.	Complied/ Not Complied
4	The instrument will be calibrated at the works of BHEL Bhopal . All items required to calibrate items shall be brought by the Calibration Agency. Any facility or necessary arrangement required for calibration of Items shall be clearly written in submitted offer.	Complied/ Not Complied
5	The Standard Equipment/ Instruments used for calibration shall have capability (class/accuracy/stability) to maintain proper accuracy during calibration and traceability to National/ International Standards. Calibration agency to specify in their offer. Documents for traceability of standard and instrument used for calibration shall be submitted with offer.	Complied/ Not Complied
6	Calibration stickers bearing equipment details, calibration date, calibration status shall be put on the Instrument after calibration.	Complied/ Not Complied
7	Detail calibration certificate of the instrument calibrated shall be prepared in line with ISO 17025:2017 and should be submitted within 7 days from date of completion of calibration. There shall be separate certificate for each 29 instruments calibrated.	Complied/ Not Complied
8	In line with ISO 17025:2017, calibration certificate or calibration label shall not contain any recommendation on the calibration interval. Calibration certificate and calibration label shall bear calibration date & not calibration due date.	Complied/ Not Complied
9	The payment shall be made after completion of work and submission of Final GST Invoice/ Bill. No part payment shall be done. Payment terms will be 60 days from the date of submission of bill (45 days in case of MSME). TDS will also be deducted under GST Act “ & “GST will be levied on Penalty.	Agreed/ Not Agreed
10	Deviation, if any, shall be clearly brought out.	Complied/ Not Complied
11	The Party shall confirm all the above points failing which their offer may not be considered.	Complied/ Not Complied

TECHNICAL DETAILS OF MEASURING INSTRUMENTS

Annexure-III

SI No	Item	Quantity	Technical Details
(i)	STANDARD CURRENT TRANSFORMER		
1	300 kV, 4000A Current Transformer for Loss Measurement System (4000/2000/1000/500/100/50--06 Points)	1 No.	Ratio and phase angle error to be measured Calibration points 4000/2000/1000/500/100/50 CMC requirements : R.E. : 0.1% P.A.E : 2.8 min or better
2	100 kV, 2000A Current Transformer for Loss Measurement System (2000/1000/500/200/100/20--06 Points)	6 Nos.	Ratio and phase angle error to be measured Calibration points 2000/1000/500/200/100/20 CMC requirements : R.E. : 0.1% P.A.E : 2.8 min or better
3	100 kV, 4000 A Current Transformer for Loss Measurement System (4000/2000/1000/500/200/100--06 Points)	2 Nos.	Calibration points 4000/2000/1000/500/200/100 CMC requirements : R.E. : 0.1% P.A.E : 2.8 min or better
4	Std Current Transformer(4000A) 4000-3600-3200-3000- 2500-2400-2000-1800-1600-1500-1250-1200-1000/1 A-- 13 Points	1 No.	4000-3600-3200-3000-2500-2400-2000-1800-1600-1500-1250- 1200-1000/1 A at 2.5 VA and 0 VA of Acc CI 0.1 (120 %, 100% , 20% and 5% of rated current)
5	Std Current Transformer (1200A) (1200-1000-800-400-200-100/1)--06 Points	1 No.	1200-1000-800-400-200-100/1 A at 2.5 VA and 0 VA of Acc CI 0.1 (120 %, 100% , 20% and 5% of rated current)
	Sub Total	11	

(ii)	STANDARD CAPACITOR		
1	100 kV, 100 pF Standard capacitor for loss measurement system	6 Nos.	Ratio and phase angle error to be measured . CMC requirements : R.E. : 0.1% P.A.E : 2.8 min or better
2	300 kV, 100 pF Standard capacitor for loss measurement system	1 No.	Ratio and phase angle error to be measured . CMC requirements : R.E. : 0.1% P.A.E : 2.8 min or better
3	800 kV Standard Capacitor	1 No.	Capacitance and tan delta value to be measured. Capacitance measurement CMC should be 1.25% or better
	Sub Total	8	
(iii)	CT/CVT TEST SYSTEM		
1	AITTS-98 (Automatic instrument transformer test system)	1 No.	FOR CT OPERATING RANGE (1 TO 120 % OF 1A & 5A BOTH) AND PT OPERATING RANGE(80 TO 120 % OF 63.5V & 110V) RATIO ERROR: $\pm 0.6\%$ OF CERTIFIED READING ± 10 PPM , PHASE ERROR: $\pm 0.6\%$ OF CERTIFIED READING ± 10 μ RAD, ACCURACY-BURDEN: $\pm 1\%$ OF CERTIFIED VALUE
2	AVTTS-98 (Automatic voltage transformer test system)	1 No.	FOR NORMAL OPERATING RANGE(80 TO 120% OF 63.5V & 110V), RATIO ERROR: $\pm 0.6\%$ OF CERTIFIED READING ± 10 PPM , PHASE ERROR: $\pm 0.6\%$ OF CERTIFIED READING ± 10 μ RAD,
3	Electronics Potential divider (EPD)	1 No.	RATIO ERROR : CERTIFIED READING $\pm 0.05\%$, PHASE ERROR : ± 2 MIN AT RATED CONDITIONS RATIO : 300 & 200 (22- 33kV/110V ratio)
6	Std Voltage Transformer (33 kV)	1 No.	Ratio : 33000-22000/110V-63.5V, Rated Burden :10VA, Acc cl 0.1, Single phase
4	Burden 0.8 Pf & Unity Pf (CB-96,1A)	2 Nos	$\pm 3\%$ OF RATED VA, $\pm 3\%$ OF 0.8 POWER FACTOR, $\pm 1\%$ OF UNITY POWER FACTOR
5	Burden 0.8 Pf (PB-96,63.5V)	4 Nos	$\pm 3\%$ OF RATED VA $\pm 3\%$ OF POWER FACTOR
	Sub Total	10	
	Grand Total	29	

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ENQUIRY FORM

(INFORMATION TO BE FILLED BY CALIBRATION/TESTING AGENCY)

Part 1 (Technical Bid)**General Information**

1.	Name of Laboratory	
2.	Address:	
3.	Contact Person	
4.	Telephone/Fax	
5.	Email Address	

Technical Information

1.	Details of Standard Instruments used for Calibration (Details, Make & Model)	1. 2. 3.
2.	Accreditation Status in Concerned Parameter (NABL Certificate No., Validity & CMC)	
3.	Accuracy of Standard instruments used	
4.	Time Slot and Duration for Calibration	
5.	Compliance to Annexure 1, 2 & 3	

Date:

Signature of Lab Representative with
Name and Designation

Annexure 4B

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ENQUIRY FORM

(INFORMATION TO BE FILLED BY CALIBRATION/TESTING AGENCY)

Part 2(Price Bid)

Financial Information

1.	Calibration Charges	In word In Figure
2.	Mode of Payment	
3.	Your GST Registration No.	
4.	Your PAN No.	

Date:

Signature of Lab Representative with
Name and Designation