



BHARAT HEAVY ELECTRICALS LIMITED
CORPORATE RESEARCH & DEVELOPMENT DIVISION
VIKASNAGAR, HYDERABAD - 500 093, INDIA

PHONES:23774494 (EXT:9804)
FAX : 91 40 23770698

RD:DP:MPX:F-04
Ref: 711402492

ENQUIRY

Date 09-12-2014

Enquiry for **RETROFIT FOR SERVO HYDRAULIC UNIVERSAL TESTING MACHINE(S) OF BOTH 250kN - 1no. and 50kN - 1no.**

Enquiry No:711402492

Enquiry Date : 09-12-2014

Due Date: 13-01-2015

Indicative Delivery Date : 31-08-2015

Sl.No	Item Description	Unit	Qty
1	1. CONTROL ELECTRONICS ALONG WITH ENCLOUSER(S) FOR HOUSING TEST CONTROLS AND COMPUTER SYSTEM	SET	1
2	2. SOFT WARE	SET	1
3	3. TENSILE TEST APPLICATION SOFTWARE AS PER ASTM E - 8M	SET	1
4	4. LOW CYCLE FATIGUE APPLICATION SOFTWARE AS PER ASTM E - 606	SET	1
5	5. FRACTURE MECHANICS APPLICATION SOFTWARE AS PER ASTM E - 1820 AND E - 399	SET	1
6	6. HIGH CYCLE FATIGUE TEST APPLICATION SOFTWARE AS PER ASTM E - 466	SET	1
7	7. FATIGUE CRACK PROPAGATION TEST APPLICATION SOFTWARE AS PER ASTM E - 647	SET	1
8	8. STATE OF ART COMPUTER ALONG WITH LATEST HP COLOR LASTER JET PRINTER & UPS	SET	1

Please submit your quotation for the above material in sealed cover superscribed with enquiry no, enquiry date and due date subject to our enclosed terms and conditions. The quotations shall reach us on or before the due date by 12 noon. The tenders can also be dropped in the tender box kept at the security gate,BHEL R&D. In case you are not in position to submit the offer,please send reply suitably specifying the reasons.

Sl.No	Description	Document Ref.
01	Enquiry, General Terms & Conditions, Commercial Terms & Conditions etc.	Volume - 1
02	Technical specifications, Scope of Supply etc.	Volume - 2

M Hemanth Kumar
Manager
hemanthkumar@bhelrnd.co.in

	ENQUIRY & QUALIFYING CRITERIA	Volume - 1 Enquiry No 711402492
RETROFIT FOR SERVO HYDRAULIC UNIVERSAL TESTING MACHINE(S) OF BOTH 250kN - 1no. and 50kN - 1no.		

1	Tendor inviting officer / Authority, Designation and Address	Additional General Manager(MM) BHEL R & D, Vikas Nagar (Near Balanagar), Hyderabad -500093
2	Item Description - Qty	1) 1. CONTROL ELECTRONICS ALONG WITH ENCLOUSER(S) FOR HOUSING TEST CONTROLS AND COMPUTER SYSTEM - 1 SET 2) 2. SOFT WARE - 1 SET 3) 3. TENSILE TEST APPLICATION SOFTWARE AS PER ASTM E - 8M - 1 SET 4) 4. LOW CYCLE FATIGUE APPLICATION SOFTWARE AS PER ASTM E - 606 - 1 SET 5) 5. FRACTURE MECHANICS APPLICATION SOFTWARE AS PER ASTM E - 1820 AND E - 399 - 1 SET 6) 6. HIGH CYCLE FATIGUE TEST APPLICATION SOFTWARE AS PER ASTM E - 466 - 1 SET 7) 7. FATIGUE CRACK PROPAGATION TEST APPLICATION SOFTWARE AS PER ASTM E - 647 - 1 SET 8) 8. STATE OF ART COMPUTER ALONG WITH LATEST HP COLOR LASTER JET PRINTER & UPS - 1 SET
3	Enquiry Reference no.	711402492
4	Indicative Delivery Date	31-08-2015
5	Due date, Time and place for submission of tender	13-01-2015 upto 12 noon. Sealed Quotations shall be addressed to AGM(MM), BHEL R & D Division, Vikas Nagar (Near Balanagar), Hyderabad AP,India Pin - 500 093 Quotations can also be deposited in the Tender box located at Security Gate of BHEL R & D BHEL shall not be responsible for any postal/courier delay.
6	Place, Date and time of Tech.Bid opening	Tender Opening Cell (Sangam) BHEL R & D Office. 13-01-2015, 2 PM
7	Mode of Submission of Tender	Please submit your offer in one common sealed cover containing two parts in separate sealed covers as detailed below. 1. First Cover shall contain: a. Technical & Commercial bid. b. Filled in commercial complaince statement(mandatory) c. Copy of Price-bid with price(s) cells blank (un-priced price bid) 2. Second cover shall contain Price Bid. Price Bid Containing Price quotes, installation and/or commissioning charges shall be spelt out clearly taking into account total charges rather than quoting vaguely such as charges per man-day or charges per engineer per day etc. If the price bid was found later to be different from the unpriced pricebid format in any way, the offer will be rejected summarily. The rates shall be quoted both in figures and in words. The offers can also be submitted through e-mail and have to be sent in PDF format (files with PDF extension only). Files having extensions other than PDF like RAR, EXE,JPEG etc. and with external links will not be considered. They have to be sent to e-mail id: 'eoffers@bhelmd.co.in' only. Copies should not be marked to anyone. If the offers are marked to anyone other than to eoffers, their offer will not be considered.

		<p>The e-mail offers should have two attachments. One attachment shall contain a) Technical & Commercial bid b) Filled in Commercial Compliance Statement (mandatory) and c) Copy of price bid with price(s) cells blank (un-priced price bid). The second attachment shall contain price bid.</p>
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The subject of the e-mail should contain Enquiry No, Enquiry Date and Due date.

	GENERAL TERMS & CONDITIONS (GTC)	Volume - 1 Enquiry No 711402492
RETROFIT FOR SERVO HYDRAULIC UNIVERSAL TESTING MACHINE(S) OF BOTH 250kN - 1no. and 50kN - 1no.		

SL.No.	Clause	BHEL REQUIREMENT
1	General	<p>a. All offers must include name of the contact person, phone no/mobile no, Fax no, email-id. Unsigned offers are liable for rejection.</p> <p>b. We, BHEL R&D, is registered with Department of Scientific and Industrial Research (DSIR) for the purpose of availing Customs Duty exemption in terms of Government Notification no.24/2007-Customs dated 01-Mar-2007 & Central Excise Duty Exemption in terms of Government Notification No. 16/2007-Central Excise dated 01-Mar-2007 as amended from time to time. Hence suppliers are requested to submit their bids clearly stating applicable taxes/duties. All foreign quotes will be evaluated with custom duty @ 5.15% for cost comparison.</p> <p>c. Taxes & Duties quoted will be taken for evaluation of landed cost & order placement and no change will be entertained later except in the case of changes made by the government. However please note that we are availing cenvat credit for service tax and hence service tax will be excluded in calculation of landed cost to BHEL. In case any Taxes/ Duties exempted, a self declaration for the same may be attached to the offer. Changes in taxes and duties because of the changes in turn over etc will be to supplier's account.</p> <p>d. Where ever vendor registration form and EFT details have been submitted earlier, the same need not be submitted again unless there is a change.</p> <p>e. BHEL R&D do not issue 'C' form .</p> <p>f. L1 status shall be decided on Cost to BHEL Basis.</p>
2	Foreign Suppliers	<p>BHEL will deal directly with foreign vendors, where ever required, for procurement of goods.However, if the foreign principal desires to avail of services of an Indian agent,then foreign principal should ensure compliance to regulatory guidelines which require mandatory submission of agency agreement containing agency commission.</p> <p>Any supplier (Agents/distributors/representatives) desirous of quoting imported goods/services, they should submit the quote in foreign currency along with agency agreement copy, failing which their offer is liable for rejection.In case of non submission of agency agreement copy,the principal should submit the quotation to BHEL directly. Foreign supplier will also indicate in their offer Indian agent's name, if any, address and percentage of agency commission out of the quoted price.</p> <p>Fully owned Indian Subsidiaries/distributors of Foreign Companies shall quote in Foreign Currency on FOB basis only.</p>
3	Late Tenders	Tenders received after due date/time(12:00hrs) will not be considered
4	Discrepancy in words and figures	<p>(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.</p> <p>(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</p> <p>(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.</p> <p>(d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto 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.</p>
5	Two Part bid clarifications	In the case of Two-part bid, the vendor should furnish technical and commercial clarifications, if any, within stipulated time mentioned, failing which, it will be construed that the vendor is not interested in the tender and BHEL shall not consider the offer for further evaluation.
6	Price Impacts	In the event of any bidder, after finalizing the technical specifications and scope of supply, opting to revise their original bid, they have to submit the Price-Impact only. The Original price bid along with Price-Impact bid shall be opened during price bid

		opening. Unsolicited price impacts will not be considered.
7	Price bid evaluation	All offers in price bid opening or reverse auction shall be evaluated in Indian currency based on unit price, packing & forwarding, taxes/duties, freight charges if any, exchange rate. Loading due to non-acceptance of our standard commercial terms will be evaluated as per the LOADING FACTORS form as enclosed along with the enquiry. The exchange rate declared by State Bank of India under TT Selling rate on the technical bid open date shall be adopted for evaluating foreign currency bids.
8	Packing	The supplier shall be responsible for the goods being properly and adequately packed so as to prevent any loss, damage or deterioration during transit.
9	Withdrawal	In case the supplier withdraws their offer before placement of order, BHEL reserves the right not to send next enquiry(ies). In case the supplier withdraws the quotation after its acceptance by BHEL or fails to supply the goods as per the terms and conditions of contract, or at any time repudiated the contract wholly or in part, BHEL shall be at liberty to cancel the Purchase Order and to recover from the supplier the extra cost and other loss, incidentals due to the breach of contract on the part of the supplier through risk purchase.
10	Risk Purchase	In case of default/late delivery, BHEL reserves the right to make alternate arrangement for procurement at suppliers risk and cost.
11	Banned List	The offers of the bidders who are in the banned list and the offers of the bidders who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL website www.bhel.com.
12	Over All L1	Order will be placed on overall L1 basis. Vendors should quote for all items, otherwise the offer will be rejected.
13	Additional Information	Suppliers are requested to visit our web site regularly for any updates and additional information, "All corrigenda, addenda, amendments, time extensions clarifications, etc. to the tender will be hosted on BHEL website only". The corrigendum will not be published in news paper.
14	Destination	Indian Vendors: Destination shall be Stores, BHEL R&D, Hyderabad. Foreign Vendors: 1) BHEL R.O.D Office, Mumbai, India for sea consignments and 2) BHEL R&D, Hyderabad, India for air consignments.
15	Arbitration	Subject to the jurisdiction of Hyderabad/Secunderabad, Andhra Pradesh, India in respect of any suit or other legal proceedings relating this contract.
16	Micro Small Enterprises (MSEs)	<p>In case the supplier belongs to MSEs (Micro Small Enterprises), Registration copy in this respect shall be submitted along with the offer. Further if MSEs are owned by the Scheduled Caste or the Scheduled Tribe entrepreneurs the same may be intimated.</p> <p>The following are the benefits for the MSEs.</p> <ol style="list-style-type: none"> 1. MSEs are given tender documents free of cost and are exempted from payment of earnest money (EMD). 2. In tender, participating MSEs quoting price within price band of L1+15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply up to 20% of total tendered value. In case of more than one such MSE, the supply shall be shared proportionately. <p>MSE suppliers can avail the intended benefits only if they submit along with offer, attested copies of either EM II certificate having deemed validity (Two years from the date of issue of acknowledgement in EM-II) or valid NSIC certificate or EM II certificate along with CA certificate (Format as below) applicable for the year, certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant status (Micro or small) Where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders and MSE status of such suppliers shall be shifted to Non MSE supplier till the supplier submits these documents.</p> <p style="text-align: center;">Certificate by chartered Accountant on letter head</p> <p>This is to certify that M/s (hereinafter referred to as 'company') having its registered office at is registered under MSMED Act 2006, (Entrepreneur Memorandum No(Part-II) dtd:....., Category:.....(Micro/Small). (Copy enclosed).</p>

		<p>Further verified from the Books of Accounts that the investment of the company as on date..... as per MSMED Act 2006 is as follows :</p> <p>1. For manufacturing Enterprises : Investment in plant and machinery (i.e. Original cost excluding land and building and the items specified by the ministry of small Scale Industries vide its notification No.S.O.1722(E) dated October 5, 2006.</p> <p>2. For Service Enterprises : Investment in equipment (Original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006: Rs..... Lacs</p> <p>The above investment of Rs..... Lacs is within permissible limit of Rs..... Lacs forMicro/Small (Strike off which is not applicable) Category under MSMED Act 2006.</p> <p>Date:</p> <p>(Signature) Name- Membership number – Seal of Chartered Accountant</p>
17	Inspection	On receipt, the goods shall be subjected to inspection and our decision regarding the acceptability of the goods shall be final and binding on the suppliers.

Signature of the bidder with Seal & Date

	COMMERCIAL TERMS & CONDITIONS (CTC)	Volume - 1 Enquiry No 711402492
RETROFIT FOR SERVO HYDRAULIC UNIVERSAL TESTING MACHINE(S) OF BOTH 250kN - 1no. and 50kN - 1no.		

SL.No.	Clause	BHEL REQUIREMENT	SUPPLIERS ACCEPTANCE / REMARKS
1	Reverse Auction	<p>BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.</p> <p>In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non-submission of „online sealed bid“ by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.</p>	
2	Two part	<p>Please submit your offer in one common sealed cover containing two parts in separate sealed covers as detailed below.</p> <ol style="list-style-type: none"> 1. First Cover shall contain: <ol style="list-style-type: none"> a. Technical & Commercial bid. b. Filled in commercial compliance statement(mandatory) c. Copy of Price-bid with price(s) cells blank (un-priced price bid) 2. Second cover shall contain Price Bid. Price Bid Containing Price quotes, installation and/or commissioning charges shall be spelt out clearly taking into account total charges rather than quoting vaguely such as charges per man-day or charges per engineer per day etc. <p>If the price bid was found later to be different from the unpriced pricebid format in any way, the offer will be rejected summarily. The rates shall be quoted both in figures and in words.</p> <p>The offers can also be submitted through e-mail and have to be sent in PDF format (files with PDF extension only). Files having extensions other than PDF like RAR, EXE,JPEG etc. and with external links will not be considered. They have to be sent to e-mail id: 'eoffers@bhelrnd.co.in' only. Copies should not be marked to anyone. If the offers are marked to anyone other than to eoffers, their offer will not be considered.</p> <p>The e-mail offers should have two attachments. One attachment shall contain a) Technical & Commercial bid b) Filled in Commercial Compliance Statement (mandatory) and c) Copy of price bid with price(s) cells blank (un-priced price bid). The second attachment shall contain price bid.</p> <p>The subject of the e-mail should contain Enquiry No, Enquiry Date and Due date.</p>	
3	Weight and Packing Dimensions.	The Supplier shall indicate the shipping weight (Kgs) and dimensions(L x W x H in cms) clearly along with offer.	
4	Validity of Offer	90 days from date of techno-commercial bid opening.	
5	Price basis	<p>The prices shall be firm for entire period of contract.</p> <p>The suppliers shall indicate packing and forwarding charges,if any, separately.</p> <p>All foreign suppliers shall quote the lowest prices on 'FOB-Nearest International Airport/Sea port' basis. An amount of 3% on basic value towards freight and insurance will be added for cost comparison.</p> <p>All Indian suppliers shall quote the lowest prices on 'free delivery at BHEL R&D Stores or F.O.R destination' basis only.</p>	
6	Rate Contract	In case the goods enquired are on Rate Contract basis with any other unit of BHEL, such fact should be clearly indicated in the quotation giving full particulars of Rate Contract number, validity and price and also your willingness to comply with order if placed against such Rate Contract. A copy of Rate contract signed by the supplier should be sent with the quotation.	
		Failure to supply the goods and/or carryout the services within the stipulated delivery	

7	LD Clause	date will attract a penalty of 0.5% per week or part thereof for the value of the undelivered portion of the purchase order subject to a maximum of 10% of the total order value. In case of non acceptance to this LD Clause, 10% of basic material cost will be loaded on the quoted prices while cost comparison. (Please refer the enclosed 'Loading Factors' sheet).
8	Payment Terms	a) For Indian Offers : BHEL standard payment term is "100% payment along with taxes by EFT/RTGS within 30 days of receipt and acceptance of material at BHEL R&D Stores, Hyderabad". For other payment terms there will be a loading on the offer as mentioned in our "Loading Factors" sheet which is enclosed to this enquiry. b) For Foreign Offers : BHEL standard payment term is "100% Invoice value by wire transfer within 30 days of receipt and acceptance of material at BHEL R&D Stores, Hyderabad". For other payment terms there will be a loading on the offer as mentioned in our "Loading Factors" sheet which is enclosed to this enquiry. All bank charges inside India shall be to BHEL account and outside India shall be to supplier's account.
9	PBG	PBG of 10% of total order value is to be submitted by the successful vendor and shall be kept valid upto guarantee period with additional claim period of 2 months there after. The offers of the suppliers not accepting to this clause will be rejected.
10	Freight & Insurance	Insurance will be arranged by BHEL in case of FCA / FOB basis supplies. In such cases, an amount of 3% towards freight and insurance will be added for cost comparison.
11	Agency Agreement	Guidelines regarding dealing with Indian agents of foreign suppliers 1. BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines which require mandatory submission of agency agreement. 2. It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant guidelines of government of India, issued from time to time. 3. The agency agreement should specify the precise relationship between the foreign oem and services to be rendered by agent / associate, whether general in nature or in relation to the particular contract, must clearly stated by the foreign supplier / Indian agent. Any payment, which the agent / associate receives in India or abroad from the oem, whether as commission or as a general retainer fee shall be brought out in record in the agreement and be made explicit in order to ensure compliance to the laws of the country. 4. Any agency commission to be paid by BHEL to the Indian agent shall be Indian currency. 5. When ever Indian agents are representing on behalf of their principals, the relevant authorization letter and agreement copy to be enclosed along with technical bid to consider the offer.
12	Delivery Period	<u>FOR INDIAN SUPPLIES :</u> Suppliers are requested to quote for the delivery mentioned in the enquiry. However, in case it is not possible to meet the delivery requirement of BHEL, they shall mention in the right column the best possible delivery period 1) From date of Purchase order =====> 2) From receipt of material / input data / drawings etc. from BHEL =====> (if applicable) 3) From receipt of approval of design documents / drawings etc. by BHEL =====> (if applicable) 4) Time from PDI to despatch =====> (if applicable) However BHEL shall inform the vendor about rejection of the offer before price bid opening in case of not meeting the delivery requirements of BHEL. =====
		<u>FOR FOREIGN SUPPLIES :</u> =====

		<p>Suppliers are requested to quote for the delivery mentioned in the enquiry. However, in case it is not possible to meet the delivery requirement of BHEL, they shall mention in the right column the best possible delivery period</p> <p>1. From date of Purchase order :=====></p> <p>2. From receipt of input data / drawings etc. from BHEL=====> (if applicable)</p> <p>3. From receipt of approval of design documents / drawings etc. by BHEL =====> (if applicable)</p> <p>4. From date of LC Opening=====> (if applicable)</p> <p>5. From date of PO acceptance =====> (wherever issues like export clearance etc. are involved, mentioning the reasons)</p> <p>However BHEL shall inform the vendor about rejection of the offer before price bid opening in case of not meeting the delivery requirements of BHEL.</p>	
13	Taxes and duties	<p>All Indian suppliers shall clearly mention current sales tax/VAT,Excise duty and Service Tax etc, if any,payable in addition to the quoted price and indicate applicable rates/percentage,item-wise clearly.The vendors should mention applicable Registration Number(s) specifically in their quotation.The suppliers are requested to submit their bids clearly stating applicable taxes and duties.The quoted taxes/duties will be taken for cost evaluation and order placement and no change will be entertained later except in the case of changes made by the government. Please note that we are availing cenvat credit for service tax and hence service tax will be excluded in calculation of landed cost to BHEL. However Proof of payment of service tax is required to be submitted for reimbursement of the same.</p>	
14	E&C	<p>Supplier to quote Supply and E&C portion with relevant taxes and time requirement seperately.BHEL reserves the right to issue two seperate orders.</p>	

Note : All the clauses of the above format should be filled and submitted with the Techno Commercial Bid (Part-1). The filled in BHEL Commercial terms & Conditions format submitted with technical bid, responding to all the clauses duly signed with seal **only shall be considered**. Any other Commercial terms & conditions of bidders entered else where in their offer shall not be considered and are liable for rejection.

Signature of the bidder with Seal & Date

	ITEM SPECIFICATIONS	Volume - 2 Enquiry NO 711402492
RETROFIT FOR SERVO HYDRAULIC UNIVERSAL TESTING MACHINE(S) OF BOTH 250kN - 1no. and 50kN - 1no.		

SL.No.	Item										
1	1. CONTROL ELECTRONICS ALONG WITH ENCLOUSER(S) FOR HOUSING TEST CONTROLS AND COMPUTER SYSTEM										
	<table border="1"> <thead> <tr> <th data-bbox="284 501 347 546">sl no</th> <th data-bbox="347 501 681 546">Descriptions</th> <th data-bbox="681 501 1031 546">BHEL Specifications</th> <th data-bbox="1031 501 1422 546">Vendor Specifications/ Deviations</th> </tr> </thead> <tbody> <tr> <td data-bbox="284 1330 347 2141" style="text-align: center; vertical-align: top;">1</td> <td data-bbox="347 1330 681 2141" style="text-align: center; vertical-align: top;">CONTROL ELECTRONICS</td> <td data-bbox="681 546 1031 2141"> <ul style="list-style-type: none"> • Shall be capable of controlling two servo hydraulic machines (one ESH make of 50kN capacity and one MTS make of 250kN capacity) • Digital Signal Processor (DSP) based closed loop controller • 24 bit Control Electronics • 32 bit Data Acquisition on the control and feedback channels • Data sampling rate of 40kHz or better on all primary channels • Servo loop update rates of 40kHz or better • Digital Input and Output lines min. 8 Nos for each machine • Provision for 2 Analog Output channels to deliver ± 10VDC • Provision for 2 Analog Input channels to accept ± 10VDC • Should have 3 Primary control channels i.e, Position, Load and Strain for each of the MTS & ESH machines seperately. • Auto Calibration and Digital Auto Zero capability • Controller should be capable of conducting all the Tests mentioned above • Should be capable of acquiring data from all control and feedback channels •The following cables shall be quoted: i) Actuator's LVDT ii) Load Cell, iii) Strain iv) Servo valve v) Hydraulic vi) Earth vii) Hydraulic mains power cables approx.5-10mts each. • Latest firmware suitable for two universal testing machines • Required control panels for integrating both power packs with the controller as below: <ul style="list-style-type: none"> <input type="checkbox"/> Servo drive based control system for the power pack <input type="checkbox"/> Variable flow, constant pressure to suit the test requirements given below <input type="checkbox"/> For static tests, the pump must run with bear minimum speed and for fatigue tests, it must run with maximum speed, depending on requirement <input type="checkbox"/> Pump interface circuitry shall be provided for interfacing power pack to controller <input type="checkbox"/> Required relays etc should be provided </td> <td data-bbox="1031 546 1422 2141"></td> </tr> </tbody> </table>	sl no	Descriptions	BHEL Specifications	Vendor Specifications/ Deviations	1	CONTROL ELECTRONICS	<ul style="list-style-type: none"> • Shall be capable of controlling two servo hydraulic machines (one ESH make of 50kN capacity and one MTS make of 250kN capacity) • Digital Signal Processor (DSP) based closed loop controller • 24 bit Control Electronics • 32 bit Data Acquisition on the control and feedback channels • Data sampling rate of 40kHz or better on all primary channels • Servo loop update rates of 40kHz or better • Digital Input and Output lines min. 8 Nos for each machine • Provision for 2 Analog Output channels to deliver ± 10VDC • Provision for 2 Analog Input channels to accept ± 10VDC • Should have 3 Primary control channels i.e, Position, Load and Strain for each of the MTS & ESH machines seperately. • Auto Calibration and Digital Auto Zero capability • Controller should be capable of conducting all the Tests mentioned above • Should be capable of acquiring data from all control and feedback channels •The following cables shall be quoted: i) Actuator's LVDT ii) Load Cell, iii) Strain iv) Servo valve v) Hydraulic vi) Earth vii) Hydraulic mains power cables approx.5-10mts each. • Latest firmware suitable for two universal testing machines • Required control panels for integrating both power packs with the controller as below: <ul style="list-style-type: none"> <input type="checkbox"/> Servo drive based control system for the power pack <input type="checkbox"/> Variable flow, constant pressure to suit the test requirements given below <input type="checkbox"/> For static tests, the pump must run with bear minimum speed and for fatigue tests, it must run with maximum speed, depending on requirement <input type="checkbox"/> Pump interface circuitry shall be provided for interfacing power pack to controller <input type="checkbox"/> Required relays etc should be provided 			
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		<input type="checkbox"/> It should have LCD Display for pack status <input type="checkbox"/> It shall have online display of oil pressure, temperature, frequency, rpm etc <input type="checkbox"/> Online display of running hours, fault notifications such as, over temperature, over / under pressure, power failure, low oil level, over current etc <ul style="list-style-type: none"> • Vertical rack enclosure for placing the controller and PC system as below: <ul style="list-style-type: none"> <input type="checkbox"/> It should be rack type enclosure <input type="checkbox"/> It shall have panel air conditioner for improved electronics life <input type="checkbox"/> It shall work on 230VAC 50Hz Single phase power source <input type="checkbox"/> It shall have see through plexi glass window for monitoring screen without having opened <input type="checkbox"/> Required no of power points shall be available in the enclosure <input type="checkbox"/> Preferred make: Rittal <input type="checkbox"/> It shall allow for uncluttered cable arrangement. <p>The compactability of existing extensometers (RT & High Temperature) s</p>	
	Manufactures Test Certificate	Manufacturer's Test Certificate required and shall be provided before dispatch.	
	E&C and Warranty	<p>Shall be quoted separately as optional.</p> <p>All supplied items to be provided with warranty for 12 months from the date of dispatch.</p> <p>In case of items involving erection and commissioning, supplier shall provide warranty for 18 months from date of dispatch or 12 months from erection and commissioning whichever is later.</p>	
	Training	Shall be quoted separately as optional.	
2	2. SOFT WARE		
	sl no	Descriptions	BHEL Specifications
			Vendor Specifications/ Deviations
			<ul style="list-style-type: none"> • Windows 7.0 based Software, facilitating basic operation of the UTM • Software should be capable of conducting tuning of all control channels with PID gain control adjustment • Should be capable of acquiring data from all control and feedback channels at 8 KHz • Servo Loop Update and Simultaneous data sampling rate

	2	SOFT WARE	<p>of min 40 KHz</p> <ul style="list-style-type: none"> • Should provide Position control, Load Control and Strain control by default • Automatic and Manual settable Data Acquisition rates for different test applications • Electronic Safety Limit (user settable) interlocks on all control channels to protect transducers and machine from over loading and over travelling • All safety Parameters like, Over Temp of Oil, over and Under Pressure of oil, Emergency Stop, Filter Clog Indication, Power Failure Indication, Motor over load to be monitored by the software and should be displayed accordingly • Should be capable of applying cyclic loads or strains in different waveform modes like, Sine, Square and Ramp in Stroke, Load and Strain control modes • Adaptive Control feature • Should be capable of creating User defined Non Standard waveforms with Dwell times • All soft wares required to conduct Tensile, Compression, 3-point bend, LCF, HCF, FCGR and Fracture Mechanics as per relevant ASTM Standards • Advanced data filtering options on all feedback channels • General purpose application to create user defined test profiles • Advanced graphics to view all feedback and set points on single and multiple graphs • Graphical display of Load Vs Displacement, Stress Vs Strain, load vs time, displacement vs time etc should be available • Software offered should be capable of generating the final test report including Raw Data in the general purpose MS Office (Ex: Excel) format 				
3	3. TENSILE TEST APPLICATION SOFTWARE AS PER ASTM E - 8M						
	sl no	Descriptions	<table border="1"> <thead> <tr> <th data-bbox="1029 1720 1252 1765">BHEL Specifications</th> <th data-bbox="1252 1720 1428 1765">Vendor Specifications/ Deviations</th> </tr> </thead> <tbody> <tr> <td data-bbox="1029 1765 1252 2150"> <ul style="list-style-type: none"> • Fully automated software must be as per ASTM E - 8M • Tests should be possible in stroke, load or strain control • Online graphs of stress vs strain, load vs displacement, load vs time, displacement vs time • Option to save the test procedures and recall them for future use • Data storage and recalling facility </td> <td data-bbox="1252 1765 1428 2150"></td> </tr> </tbody> </table>	BHEL Specifications	Vendor Specifications/ Deviations	<ul style="list-style-type: none"> • Fully automated software must be as per ASTM E - 8M • Tests should be possible in stroke, load or strain control • Online graphs of stress vs strain, load vs displacement, load vs time, displacement vs time • Option to save the test procedures and recall them for future use • Data storage and recalling facility 	
BHEL Specifications	Vendor Specifications/ Deviations						
<ul style="list-style-type: none"> • Fully automated software must be as per ASTM E - 8M • Tests should be possible in stroke, load or strain control • Online graphs of stress vs strain, load vs displacement, load vs time, displacement vs time • Option to save the test procedures and recall them for future use • Data storage and recalling facility 							

	<p>3. TENSILE TEST APPLICATION SOFTWARE AS PER ASTM E 8M</p>	<ul style="list-style-type: none"> • Auto data acquisition settings • Option to view multiple test graphs in one plot • Option to run test in dual rate • Option to remove the extensometer and continue the test in stroke control • Option to stop the test after specified percentage load drop • Limit settings on stroke, strain and load channels • Offline post processing program to analyze the results in MS Excel • Option to batch processing the data 	
4	4. LOW CYCLE FATIGUE APPLICATION SOFTWARE AS PER ASTM E - 606		
	<p>4. LOW CYCLE FATIGUE APPLICATION SOFTWARE AS PER ASTM E 606</p>	<p>BHEL Specifications</p> <ul style="list-style-type: none"> • Data collection from various channels viz. Stroke, Load, Stress and Axial Strain • Real- time display of all data channels • Online loading and unloading modulus computation along with max and min stress • Stress-strain data on selected loops and test results shall be exported to MS-Excel as spreadsheet. • Ability to create Sine, Triangular waveforms and its combination, also user specified is required. • Loading under constant amplitude load control / strain control / Total Strain control / Incremental strain control • Capability to conduct tests with hold time at +ve or -ve or at both peaks • Continuous peak-through monitoring • Test termination option: % drop in stress, % drop in modulus, ratio of loading / unloading modulus, % increase in strain, number of cycles etc. • Three test control options: Load, Axial Strain and Stroke • Frequency ranges from 0.01 to 5.0 Hz • Capable of carrying out auto load string alignment as per user defined range 	<p>Vendor Specifications/ Deviations</p>
5	5. FRACTURE MECHANICS APPLICATION SOFTWARE AS PER ASTM E - 1820 AND E - 399		
		<p>BHEL Specifications</p> <ul style="list-style-type: none"> • Full automated test using CMOD based measurements for crack opening and compliance • Fracture test under stroke or COD control • Specimen geometry shall include C(T) with LLD, C(T) with CMOD, SE(B) and DC(T) 	<p>Vendor Specifications/ Deviations</p>

	5. FRACTURE MECHANICS APPLICATION SOFTWARE AS PER ASTM E1820 AND 399	<ul style="list-style-type: none"> • User Input or default inputs for polynomial constants for compliance based crack length and stress intensity factor for selected geometries shall be available • Test termination conditions shall include limits on displacement increment, crack length increment or load • It shall process the data and generate report according to E1820 & E399 packages • Validation of K_{Ic}, J_{Ic} tests according to ASTM standards 		
6	6. HIGH CYCLE FATIGUE TEST APPLICATION SOFTWARE AS PER ASTM E - 466			
	sl no	Descriptions	BHEL Specifications	Vendor Specifications/ Deviations
		6. HIGH CYCLE FATIGUE TEST APPLICATION SOFTWARE AS PER ASTM E-466	<ul style="list-style-type: none"> • Fully automated software shall be according to ASTM E – 466 • Integrated with all modules viz. Power Pack, all transducers, Induction Heating system (if any) of the test system for full and automated control • Test frequencies up to 50 Hz • Data Acquisition rates up to 8 KHz simultaneous on all channels data rates selectable by the user • Data collection from various channels viz. Stroke, Load, Stress, Axial Strain and other Transducer output like, Potential Drop, Temperature, Time, Cycle Number Real- time display of all data channels 	
7	7. FATIGUE CRACK PROPAGATION TEST APPLICATION SOFTWARE AS PER ASTM E - 647			
	sl no	Descriptions	BHEL Specifications	Vendor Specifications/ Deviations
		7. FATIGUE CRACK PROPAGATION TEST APPLICATION SOFTWARE AS PER ASTM E-647	<ul style="list-style-type: none"> • Fracture Mechanics application for fully automated crack growth testing as per ASTM E647 • Crack length measurement from unloading compliance • Should work with standard geometries including C(T), SE (T), D(T), SE(B) etc • Total description of tens of steps including pre-cracking, decreasing-K, constant stress ratio etc shall be available • Test termination conditions shall include limit on crack length, crack increment, K_{max}, crack growth rate or number of cycles • Post processing software should be included for computation and graphical display of da/dN Vs Delta K, crack length Vs No of cycles and other parameters 	
8	8. STATE OF ART COMPUTER ALONG WITH LATEST HP COLOR LASTER JET PRINTER & UPS			
	sl no	Descriptions	BHEL Specifications	Vendor Specifications/ Deviations

	8. STATE OF ART COMPUTER ALONG WITH LATEST HP COLOR LASTER JET PRINTER & UPS	<ul style="list-style-type: none"> • Pentium i5 or later • 1 TB Hard Disk Drive, 8GB RAM, 18" Monitor • DVD writer, Key board, Mouse • Windows 7.0 operating system and MS Office installed • HP Laser Jet Printer with suitable UPS power backup for saving the DATA. 	
	Manufactures Test Certificate	Manufacturer's Test Certificate required and shall be provided before dispatch.	
	E&C and Warranty	<p>Shall be quoted separately as optional.</p> <p>All supplied items to be provided with warranty for 12 months from the date of dispatch.</p> <p>In case of items involving erection and commissioning, supplier shall provide warranty for 18 months from date of dispatch or 12 months from erection and commissioning whichever is later.</p>	
G	General Specifications		
	sl no	Descriptions	BHEL Specifications Vendor Specifications/ Deviations
		General Specification	<ul style="list-style-type: none"> • Customors list should be provided. • ISO 9001 – 2008 Accreditation is mandatory • Proof for track record of similar type of test systems retrofits for a minimum period of 5 years preferably to government organizations or Institutes in India • should submit list of supplies made for a minimum period of 5 years with complete contact details of the end users such as phone number, e-mail ID etc. User list of servo hydraulic UTMs and retrofits should only be submitted. • A Single Source Local Service Support Facility in India preferably from Hyderabad and should submit Address and Contact details. • Firm shall give an Undertaking that, un interrupted service support will be given for a minimum period of 10 years along with spares supply. • Firm shall give an undertaking that, the Software upgrades if any, during the warranty period of one year, should be supplied free of charge. • Also should quote for 5yrs AMC separately (2YRS + 3YRS Extended).
			Manufacturer's Test Certificate

	Manufactures Test Certificate	required and shall be provided before dispatch.	
	E&C and Warranty	Shall be quoted separately as optional. All supplied items to be provided with warranty for 12 months from the date of dispatch. In case of items involving erection and commissioning, supplier shall provide warranty for 18 months from date of dispatch or 12 months from erection and commissioning whichever is later.	
	Training	Shall be quoted separately as optional.	

* Vendors are advised to write specifications in detail and not to write like 'Complied/ Yes / No ' etc. in specifications.

Signature of the bidder with Seal & Date

BHEL R&D
RD:DP:MPX:F-22

LOADING FACTORS



NOTE : IN CASE OF DEVIATION TO BHEL TENDER SPECIFIED TERMS, LOADING FACTOR INDICATED IN FOLLOWING TABLE WILL BE APPLIED TO QUOTED PRICE WHILE EVALUATING THE LOWEST QUOTE

A. FOR INDIGENOUS PURCHASES					
SLNO	SCOPE	COMMERCIAL TERMS	BHEL STANDARD TERM	AS OFFERED	LOADING FACTOR FOR NON COMPLIANCE TO BHEL STANDARD TERMS
A.1	SUPPLY OF EQUIPMENT	PAYMENT TERMS	100% PAYMENT, WITH IN 30 DAYS FROM THE DATE OF RECEIPT AND ACCEPTANCE OF MATERIAL AT BHEL R& D	SAME	NIL
				PAYMENT AGAINST PROFORMA INVOICE / DESPATCH DOCUMENTS	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE TOTAL PO VALUE FOR ONE MONTH
				FULL ADVANCE PAYMENT WITH BANK GUARANTEE	LOADING @ ((SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE TOTAL PO VALUE FOR THE DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH
				PART ADVANCE (X%) PAYMENT WITH BANK GUARANTEE AND BALANCE PAYMENT WITH IN 30 DAYS FROM THE DATE OF RECEIPT AND ACCEPTANCE OF THE MATERIAL	LOADING @ ((SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH
				PART ADVANCE (X%) PAYMENT WITH BANK GUARANTEE AND BALANCE PAYMENT ON RECEIPT AND ACCEPTANCE OF MATERIAL	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH AND LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON BALANCE AMOUNT FOR ONE MONTH
A.2	SUPPLY OF EQUIPMENT INCLUDING ERECTION AND COMMISSIONING (E&C)	PAYMENT TERMS	90% PAYMENT, WITH IN 30 DAYS FROM THE DATE OF RECEIPT AND ACCEPTANCE OF MATERIAL AND BALANCE 10% WITH IN 30 DAYS OF COMPLETION OF E&C.	SAME	NIL
				100% PAYMENT WITH IN 30 DAYS AFTER COMPLETION OF SUPPLIES AND E&C	NIL
				90% PAYMENT AGAINST PROFORMA INVOICE/ DESPATCH DOCUMENT AND BALANCE 10% WITH IN 30 DAYS AFTER COMPLETION OF E&C.	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON 90% OF THE VALUE OF PO FOR ONE MONTH
				90% PAYMENT AGAINST PROFORMA / DESPATCH DOCUMENT AND BALANCE 10% AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON TOTAL VALUE OF THE PO FOR ONE MONTH
				90% ADVANCE PAYMENT WITH BANK GUARANTEE AND BALANCE 10% PAYMENT WITH IN 30 DAYS AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON 90% OF THE PO VALUE FOR DELIVERY PERIOD (ROUNDED OFF TO THE NEAREST MONTH) + 1 MONTH
				PART ADVANCE (X%) PAYMENT WITH BANK GUARANTEE AND (90 -X) % PAYMENT ON RECEIPT AND ACCEPTANCE OF THE MATERIAL AND 10% PAYMENT WITH IN 30 DAYS AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD (ROUNDED OFF TO THE NEAREST MONTH)+ 1 MONTH AND LOADING @ ((SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON BALANCE (90-X)% AMOUNT FOR ONE MONTH
				PART ADVANCE (X%) PAYMENT WITH BANK GUARANTEE AND BALANCE (90 - X) % PAYMENT AFTER RECEIPT AND ACCEPTANCE OF THE MATERIAL AND 10% PAYMENT AFTER COMPLETION OF E&C	LOADING @ ((SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD (ROUNDED OFF TO THE NEAREST MONTH)+ 1 MONTH AND LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON BALANCE AMOUNT (100-X)% FOR ONE MONTH

B. FOR FOREIGN PURCHASES (IMPORTED)						
SLNO	SCOPE	COMMERCIAL TERMS	BHEL STANDARD TERM	AS OFFERED	LOADING FACTOR FOR NON COMPLIANCE TO BHEL STANDARD TERMS	
B.1	SUPPLY OF EQUIPMENT	PAYMENT TERMS	100% PAYMENT BY WIRE TRANSFER WITHIN 30 DAYS FROM THE DATE OF RECEIPT AND ACCEPTANCE OF MATERIAL AT BHEL R&D. DESPATCH DOCUMENTS WILL BE SENT TO BHEL R&D DIRECTLY ALONG WITH BANK DETAILS)	SAME	NIL	
				SIGHT DRAFT ON PRESENTATION OF DESPATCH DOCUMENTS VIZ INVOICE, AWB ETC TO OUR BANKERS	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+6%) ON THE BASIC VALUE FOR ONE MONTH PLUS PAYMENT RELATED BANK CHARGES INCURRED BY BHEL	
				LC PAYMENT AGAINST DESPATCH DOCUMENTS	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+6%) ON THE BASIC VALUE FOR ONE MONTH PLUS LC RELATED BANK CHARGES INCURRED BY BHEL	
				FULL ADVANCE PAYMENT BY WIRE TRANSFER /LC WITH BANK GUARANTEE	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE BASIC VALUE FOR DELIVERY PERIOD(Rounded off to nearest month)+ 1 MONTH PLUS LC RELATED BANK CHARGES INCURRED BY BHEL	
				PART ADVANCE (X%) PAYMENT BY WIRE TRNSFR/LC WITH BANK GUARANTEE AND BALANCE PAYMENT WITH IN 30 DAYS FROM THE DATE OF RECEIPT AND ACCEPTANCE OF THE MATERIAL	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH PLUS LC RELATED BANK CHARGES INCURRED BY BHEL	
PART ADVANCE (X%) PAYMENT BY WIRE TRNSFR/LC WITH BANK GUARANTEE AND BALANCE PAYMENT ON RECEIPT AND ACCEPTANCE OF MATERIAL	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH AND LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON BALANCE AMOUNT FOR ONE MONTH PLUS LC RELATED BANK CHARGES INCURRED BY BHEL					
B. FOR FOREIGN PURCHASES (IMPORTED)						
SLNO	SCOPE	COMMERCIAL TERMS	BHEL STANDARD TERM	AS OFFERED	LOADING FACTOR FOR NON COMPLIANCE TO BHEL STANDARD TERMS	
B.2	SUPPLY OF EQUIPMENT INCLUDING ERECTION AND COMMISSIONING (E&C)	PAYMENT TERMS	90% PAYMENT BY WIRE TRANSFER WITH IN 30 DAYS FROM THE DATE OF RECEIPT AND ACCEPTANCE OF THE MATERIAL AND BALANCE 10% WITH IN 30 DAYS AFTER COMPLETION OF E&C	SAME	NIL	
				SIGHT DRAFT ON PRESENTATION OF DESPATCH DOCUMENTS VIZ INVOICE, AWB ETC TO OUR BANKERS	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+6%) FOR ONE MONTH PLUS PAYMENT RELATED BANK CHARGES INCURRED BY BHEL	
				90 PAYMENT BY WIRE TRANSFER /LC AGAINST DESPATCH DOCUMENTS BALANCE 10% WITH IN 30 DAYS AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+6%) ON 90% OF BASIC VALUE FOR ONE MONTH PLUS LC RELATED BANK CHARGES INCURRED BY BHEL	
				90% PAYMENT BY WIRE TRANSFER /LC AGAINST DESPATCH DOCUMENTS, BALANCE 10% AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+6%) ON THE BASIC VALUE FOR ONE MONTH PLUS LC RELATED BANK CHARGES INCURRED BY BHEL	
				90% OF BASIC VALUE AS ADVANCE PAYMENT BY WIRE TRANSFER /LC WITH BANK GUARANTEE AND BALANCE 10% WITH IN 30 DAYS AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+6%) ON 90% OF THE BASIC VALUE FOR DELIVERY PERIOD (Rounded off to nearest month) + ONE MONTH PLUS LC RELATED BANK CHARGES INCURRED BY BHEL	
PART ADVANCE (X%) PAYMENT BY WIRE TRANSFER /LC WITH BANK GUARANTEE AND BALANCE (90-X)% PAYMENT BY WIRE TRANSFER /LC AFTER RECEIPT AND ACCEPTANCE OF THE MATERIAL AND 10% PAYMENT WITH IN 30 DAYS AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD(Rounded off to the nearest month) + ONE MONTH AND LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON BALANCE (90-X)% FOR ONE MONTH					
PART ADVANCE (X%) PAYMENT BY WIRE TRANSFER /LC WITH BANK GUARANTEE AND BALANCE (90-X)% PAYMENT BY WIRE TRANSFER /LC AFTER RECEIPT AND ACCEPTANCE OF THE MATERIAL AND 10% PAYMENT AFTER COMPLETION OF E&C	LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON THE PART ADVANCE AMOUNT (X%) FOR THE DELIVERY PERIOD(Rounded off to the nearest month) + ONE MONTH AND LOADING @ (SBI BASE RATE ON TENDER OPENING DATE+ 6%) ON BALANCE AMOUNT (100-X)% FOR ONE MONTH					

C. PENALTY FOR DELAYED DELIVERY (COMMON FOR INDIGENOUS AND IMPORTS)				
SLNO	COMMERCIAL TERMS	BHEL STANDARD TERM	AS OFFERED	LOADING FACTOR FOR NON COMPLIANCE TO BHEL STANDARD TERMS
C	LD CLAUSE	IN THE EVENT OF DELAY IN AGREED CONTRACTUAL DELIVERY, PENALTY OF 0.5% (HALF PERCENT) PER WEEK BUT LIMITED TO A MAX OF 10% OF TOTAL ORDER VALUE WILL BE APPLICABLE	AGREED	NIL
			IF NOT AGREED	LOADING @ 10% OF THE BASIC MATERIAL COST
			IF AGREED FOR X%	LOADING @ (10-X)% OF THE BASIC MATERIAL COST
D. GUARANTEE/WARRANTY PERIOD (COMMON FOR INDIGENOUS AND IMPORTS)				
SLNO	COMMERCIAL TERMS	BHEL STANDARD TERM	AS OFFERED	LOADING FACTOR FOR NON COMPLIANCE TO BHEL STANDARD TERMS
D	GUARANTEE/WARRANTY PERIOD	STIPULATED OR REQUIRED GUARANTEE/ WARRANTY PERIOD (X) MINIMUM ACCEPTABLE GUARANTEE / WARRANTY PERIOD (Y)	AGREED	NIL
			NOT AGREED FOR STIPULATED BUT AGREED FOR MINIMUM GUARANTEE/WARRANTY(Y)	LOADING @ 10 % OF THE ORDER VALUE PER ANNUM FOR THE REDUCED GUARANTEE PERIOD (X-Y)

BHEL R&D

Terms & Conditions of Reverse Auction



Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit „online sealed bid? in the Reverse Auction. Non-submission of „online sealed bid? by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VII) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. In case BHEL 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 shall be opened as per BHEL?s standard practice.
12. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the „Business Rules of Reverse Auction?, which will be communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. In case BHEL decides to go for reverse auction, the H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

AUTHORISATION LETTER FOR E-PAYMENT/ NEFT / RTGS
(PLEASE FILL UP THE FORM COMPLETELY IN CAPITAL LETTERS ON YOUR COMPANY LETTERHEAD ONLY)

Vendor Code (to be filled by BHEL)	
------------------------------------	--

Type of Request (Tick one)	NEW	CHANGE
1 Company Name		
2 Address		
3 City with PIN Code		
4 State		
5 PAN Number		
6 TIN/ VAT No.		
7 CST No.		
8 Service Tax No.		
9 Name of Contact Person		
10 Mobile number		
11 Ph. no. with STD Code		
12 Fax No. with STD Code		
13 Email ID		
14 Website (URL)		

BANK DETAILS FOR EFT / RTGS

1	Bank Name	
2	Branch	
3	Branch Code	
4	Branch Address	
5	Branch Phone No	
6	Account No.	
7	Account Type: SB/ Current/ other (Specify)	
8	MICR Code	
9	IFSC Code	

I, as an authorized representative / owner of the above named company, hereby state as under:

1. Enclosed here with a cancelled cheque in support of our company's bank details.
2. Authorize BHEL R&D Hyderabad, to electronically make payments to the designated bank account with bank charges, if any, to our account.
3. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL / transferring Bank responsible.
4. I hereby certify that the particulars given above are true, complete and correct.
5. This authority remains in full force until BHEL receives and acknowledge written notification requesting change or cancellation.

Date :
Company
Seal

Authorised Signatory
Designation :



**Corp. R&D
DIVISION
VIKAS
NAGAR,**

RD:MPX:F-13

Bharat Heavy Electricals Limited

HYDERABAD- 500 093 (INDIA)

Ph: 040 - 23772704, Fax: 040 - 23770698, email: mpx@bhelrnd.co.in

VENDOR REGISTRATION FORM

(Indigenous supplier)

[FORM TO BE SUBMITTED* BY THE BIDDER ALONG WITH TECHNICAL-BID]

Before filling, please refer to instructions on page-4

1.0 VENDOR PROFILE:

1.1 Name and address of the vendor:

Phone Nos.:

Fax No.:

Email: 1. _____ 2. _____

1.2 Local representative name & address in Hyderabad/Secundrabad :

Phone Nos.:

Fax No.:

Email:

Contact Person:

Mobile No:

2.0 TYPE OF ORGANISATION:

PROPRIETORSHIP	Company:	Sister Concern (mention vendor registration number of main organization)	
Partnership	CORPORATION	Small Scale Industry	ANY OTHER(Please specify)

In case of SSI unit, copy of registration to be enclosed. It is requested that MSME registration certificate to be enclosed

3.0 ANNUAL TURN OVER:

#	Year	Turn-Over, Rs.
1	Current Year(budgeted)	
2	Previous year (200 - 0)	
3	Prior Year (200 - 0)	

4.0 NAME AND ADDRESS OF THE BANKER:

- 4.1 Bank Name
4.2 Branch name
4.3 Account number
4.4 Account Type
4.5 MICR Code:

4.6 IFSC Code(RTGS/NEFT):

4.7 Bank Phone number(s),

Blank cheque, duly cancelled, to be enclosed.

Please note that all payments shall be made through Electronic clearance services to your above account against the orders executed, if any.

5.0 REGISTRATION PARTICULARS(relevant copies to be enclosed)

5.1 IT Permanent Account No.(PAN):

5.2 State Sales Tax/VAT Registration No:

5.3 Central Sales Tax Registration No:

5.4 ED Registration No:

5.5 Service Tax Registration No:

5.6 PF Account No:

5.7 Labour Licence No:

5.8 ESI Account No:

6.0 CONTACT PERSON: S/Sri:

Designation:

Phone / Mobile No:

7.0 TOTAL NUMBER OF EMPLOYEES:

Graduates (Engr/Scientists/Mgmt/Fin.)	Consultants	Workers		
		Sup./Skilled	Semiskilled	Unskilled

8.0 LIST OF PRODUCTS/ SERVICES OFFERED:

#	Products/ Services	Capacity
1		
2		
3		
4		
5		
6		

9.0 REFERENCE LIST :

(Only recognized public and private sector companies, attach if printed copy available)

#	Customer	Volume / Year
1		
2		
3		
4		
5		
6		
7		

10.0 INFRASTRUCTURE / FACILITIES:

#	Facility (with specifications)	Age/ Year procured
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

11.0 REGISTRATION WITH OTHER BHEL UNIT/UNITS:

#	Unit	Registration No	Year
1			
2			
3			
4			

12.0 ANY OTHER INFORMATION :DECLARATION:

The information furnished above is true and authentic.

(CEO / PROPRIETOR)

SEAL:

DATE:

Note:

1. Registered bidders, having BHEL (R&D) registration no. or have submitted this format for registration, need not furnish this information again.
2. The competent authority reserves the right to accept or reject the registration.
3. Vendors approved for registration will be informed by mail / email, as convenient. A separate communication will be sent in case of non-registration also, citing reasons thereof.
4. BHEL reserves the right to take penal action as deemed fit if any of the information provided by the vendor(s) is found to be incorrect.
5. AGM, Head (MM) may be contacted for clarification/additional information on registration.

Instructions

1. Fill all items. Please mention "N.A." for items/ clauses not applicable.
2. Use A4 sheets for this document and the enclosures. Use of additional sheets is permitted if space provided is not adequate.
3. Attach copies of latest documents in respect of items 5.0 (Registration no.s)
4. Photographs of registered office and the chief executive/proprietor shall be furnished.



RD:MPX:F-14

Bharat Heavy Electricals Limited

Corp. R&D DIVISION

VIKAS NAGAR,

HYDERABAD- 500 093 (INDIA)

SUPPLIER REGISTRATION FORM

(FOREIGN SUPPLIER)

ALL COLUMNS SHOULD BE PROPERLY FILLED IN THE SPACE PROVIDED FOR.WHEREVER IT IS NOT APPLICABLE PLEASE WRITE "NOT APPLICABLE".INCOMPLETE OR INCORRECT FORMS MAY NOT BE CONSIDERED.

1.0 GENERAL INFORMATION:

1.1 NAME OF COMPANY

1.2 DETAILS OF HEAD OFFICE:

ADDRESS :
 TELEPHONE :
 FAX :
 EMAIL :
 WEB SITE :

1.3 DETAILS OF FACTORY/WORKS:

ADDRESS :
 TELEPHONE :
 FAX :
 EMAIL :
 WEB SITE :

1.4 DETAILS OF MARKETING AGENT

ADDRESS :
 TELEPHONE :
 FAX :
 EMAIL :
 WEB SITE :

1.5 CHIEF EXECUTIVE

1.6 CONTACT PERSON(S)

FOR PRODUCT OFFERED

NAME(S) :
 OFFICIAL CPACITY :
 ADDRESS :
 TELEPHONE :
 FAX :
 EMAIL :

1.7 YEAR OF ESTABLISHMENT

1.8 PRODUCTION CAPACITY PER ANNUM

1.9

PARTICULARS OF PRODUCT INCLUDING
 SPECIFICATION AND RANGE OFFERED
 FOR REGISTRTRION



Bharat Heavy Electricals Limited

Corp. R&D DIVISION

VIKAS NAGAR,

HYDERABAD- 500 093 (INDIA)

Ph: 040 – 23772704, Fax: 040 – 23770698, email: mpx@bhelrnd.co.in

RD:MPX:F-13

GUIDE LINES REGARDING DEALINGS WITH INDIAN AGENTS OF FOREIGN SUPPLIERS

- i. BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of the services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines - which require mandatory submission of an Agency Agreement.
- ii. It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant guidelines of Government of India, issued from time to time.
- iii. The Agency Agreement should specify the precise relationship between the foreign OEM / foreign principal and their Indian agent and their mutual interest in the business. All services to be rendered by agent/ associate, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier/ Indian agent. Any payment, which the agent or associate receives in India or abroad from the OEM, whether as commission or as a general retainer fee should be brought on record in the Agreement and be made explicit in order to ensure compliance to laws of the country.
- iv. Any agency commission to be paid by BHEL to the Indian agent shall be in Indian currency only.
- v. Whenever Indian agents are representing on behalf of their principals the relevant authorisation letter and agreement copy to be enclosed along with Technical bid to consider the offer.

