



BHARAT HEAVY ELECTRICALS LIMITED PHONES:23774494 (EXCHANGE)

CORPORATE RESEARCH & DEVELOPMENT DIVISION
VIKASNAGAR, HYDERABAD - 500 093, INDIA

FAX : 91 40 23770698

RD:DP:MPX:F-04

ENQUIRY

To - Enquiry No: 411101791 Enq Date: 06-JUL-11 Due Date: 23-AUG-11 Delivery By: 30-OCT-11

Pin

Email :

Attn. .

PLEASE SUBMIT YOUR QUOTATION IN SEALED COVER
SUPERSCRIBED WITH ENQUIRY NO, ENQUIRY DATE AND
DUE DATE SUBJECT TO OUR TERMS AND CONDITIONS
ENCLOSED, FOR THE FOLLOWING MATERIALS SO AS TO
REACH US ON OR BEFORE THE DUE DATE BY 12 NOON,
ADDRESSED TO AGM(MM). THE TENDERS WILL BE
OPENED AT 2 PM ON THE SAME DAY. THE TENDERS MAY
BE DROPPED IN THE TENDER BOX KEPT AT THE SECURITY
GATE.

PLEASE GIVE REFERENCE OF ENQ NUMBER , ENQ .DATE AND DUE DATE IN ALL YOUR CORRESPONDENCE FOR PROMPT
ACTION. IN CASE IF YOU ARE NOT MAKING THE OFFER PLEASE POST A REGRET LETTER AND RETURN THE DOCUMENTS.

SL NO	DESCRIPTION / SPECIFICATION	UNIT	QTY
1	CUSTOM DEVELOPMENT OF MONITORING SYSTEM ENTERPRISE SIGNAL ANALYSIS / PROCESSING MODULE (eSAM-v2) AS PER SPECIFICATIONS.	NO	12

NOTE:

Please submit your offer in Two parts as per enclosed "General Terms and Conditions of enquiry, Loading Factors & Contract for the purchase of Goods/ Services" in separate sealed covers as detailed below:

- 1) FIRST COVER SHALL CONTAIN A) TECHNICAL & COMMERCIAL BID, B) COMPLIANCE STATEMENT, C) UN-PRICED PRICE BID, I.E. A COPY OF THE PRICE BID WITH THE PRICE(S) COLUMNS LEFT BLANK D) BIDS WITHOUT THESE ENCLOSURES SHALL NOT BE CONSIDERED.
- 2) WHEREVER VENDOR REGISTRATION FORM AND EFT DETAILS HAVE BEEN SUBMITTED EARLIER, THE SAME NEED NOT BE SUBMITTED AGAIN UNLESS THERE IS A CHANGE.
- 3) WHEREVER INDIAN AGENTS ARE REPRESENTING ON BEHALF OF THEIR PRINCIPLES, THE RELEVANT AUTHORISATION LETTER & AGREEMENT COPY TO BE ENCLOSED ALONG WITH TECHNICAL BID TO CONSIDER THE OFFER
- 4) Second Cover containing Price bid. If the Price bid is found to be different from the un-Priced Price bid in any way, the offer will be rejected.
- 5) Unsigned offers are liable for rejection.

Note:

- 1)ALL OFFERS MUST INCLUDE NAME OF CONTACT PERSON, PHONE NO, FAX NO, EMAIL ID. UNSIGNED/INCOMPLETE OFFER(S) ARE LIABLE FOR REJECTION.
- 2) Taxes & Duties quoted will be taken for cost evaluation & order placement and no change will be entertained later except in the case of changes made by the Government.
- 3) Changes in Taxes and Duties because of the changes in Turnover etc. will be to the supplier's account.
- 4) In case any Taxes/duties exempted, a self declaration for the same may be attached to the offer.
- 5) BEING A RESEARCH INSTITUTION BHEL R&D CAN AVAIL CUSTOM DUTY EXEMPTION IN TERMS OF GOVT NOTIFICATION NO 24/2007 - CUSTOMS DATED 1.3.2007 AND CENTRAL EXCISE DUTY EXEMPTION IN TERMS OF GOVT NOTIFICATION 16/2007 - CENTRAL EXCISE DATED 1.3.2007. HENCE SUPPLIERS ARE REQUESTED TO SUBMIT THEIR BIDS WITH OUT EXCISE DUTY."
- 6)PLEASE VISIT BHEL WEBSITE REGULARLY FOR ANY UPDATES AND ANY ADDITIONAL INFORMATION PRIOR TO SUBMISSION OF OFFER
- 7)REVERSE AUCTION:
BHEL RESERVES THE RIGHT TO PROCURE ABOVE ITEMS THROUGH REVERSE AUCTION AMONG QUALIFIED BIDDERS.
- 8) GUARANTEE CERTIFICATE: REQUIRED
- 9) MANUFACTURER'S TEST CERTIFICATE : REQUIRED

PLEASE FILL UP THE ENCLOSED VENDOR REGISTRATION FORM AND
SEND IT ALONG WITH YOUR QUOTATION. OTHERWISE YOUR
QUOTATION MAY NOT BE CONSIDERED.

Yours faithfully
for BHARAT HEAVY ELECTRICALS LTD

SURYA PRAKASH MC

Sr Manager

Email: mcsprakash@bhelrnd.co.in

Direct Phone : 91-40-23882804

Mobile : 91- 9490492001

Technical Specification for Custom Development of DSP based enterprise Signal Analysis/Processing Module (eSAM-V2)

eSAM-V2 will consist of the following

- (a) Signal Processing Module (SPM-V2)
- (b) Analog Signal Conditioning Modules ((AIN-V2)
- (c) Power Supply / Tacho Conditioning Module (PS-TCH-V2)
- (d) Passive backplane to bring out necessary digital, analog lines for interfacing different modules and LED status indicators.
- (e) PCB layout / Form factor should be as per BHEL requirement.

Scope

Development of the above modules, fabrication of PCBs as per BHEL design requirements and factory acceptance testing as per BHEL requirements. PCBs shall be decided based on the final form factor during detail design. The type and location of connectors will be decided as per BHEL requirements.

Module 1: Signal Processing Module (SPM-V2)

Signal Processing Module shall have two blocks

1. Signal Processing Block.

- a. Shall be designed using TMS320F28335
- b. One signal to be provided for synchronizing sampling across multiple eSAM-V2 Signal Processing Blocks. It should be possible to configure a module as master or slave. Master will generate the synchronous signal as an output to the rest of the slave modules. The slave modules shall respond to synchronizing signal using an H/W Interrupt. One master trigger output channel should be able to drive at least 8 Slave Modules.
- c. ADC shall be I/F to this block through McBSP.
- d. Signal levels from ADC shall be interfaced with this block ensuring full ADC range for each channel thereby achieving accuracy preferably around 1%.
- e. This block is interfaced to dual port RAM which acts as an external memory.
- f. This block holds the signal processing software which includes tunable digital filters, FFT/FHT, RMS Detector, Peak Detector, Sampling Rate convertor, suitable half band filters etc.

2. Communication Block:

- a. Communication module is based on TMS320F28335
- b. Will be interfaced with Wiznet5300 embedded TCP/IP core.
- c. Interfaced to Dual Port RAM in conjunction with the signal processing block.
- d. A serial port which can be configured as either RS232 or RS485 and interfaced via communication block.
- e. Display block: Suitable Graphic Color Display with Touch Screen interfaced via parallel interface.
- f. Key Pad interface: An external key pad having min. of 8 keys interfaced to communication block. Key pad interface should be based on H/W

interrupt. Key bounce effects should be avoided in the design. If touch screen display is chosen this block shall accordingly be designed.

- g. Status Indicating LED should be provided at convenient locations the design shall be frozen during individual PCB layouts design. The LEDs should be brought out for outside visualization.

3. External Memory

- a. Both signal processing and communication blocks shall be provided with an SRAM of size not less than 2MB and Port RAM of size not less than 128Kb suitable to processing and communication and processing blocks.
- b. This must be interfaced to both the processors for high speed data transfer.

- 4. **RT Clock:** System should be provided with real time clock with battery backup.

Analog Signal Conditioning Module (AIN-V2)

This block consists of 8 channel ADC using ADS1278 with suitable conditioning and I/F to Signal Processing Block.

1. Analog Input Block:

No.of Channels : 8

Input Levels : +/- 200 mV for IEPE transducers or +/- 20.0 V (max) for Voltage types of sensors; Mode jumper selectable.

Input should be restricted to 30.0V and should withstand upto 200.0 V (actual value may be specified based on the component specification and shall be finalized during detail design)

Field inputs shall be provided with analog input active filter with a cut-off of 5 kHz in case of Voltage inputs and with a cut off of 25 kHz for IEPE sensors. Each channel may be selected as either IEPE or Voltage input using jumpers.

Programmable gain: 1 / 2 / 4 / 8 gain options shall be provided using PGA.

2. Transducer Power Block:

Constant current in the range 4-20mA for each channel in case of IEPE Input (AD694 can be used, details will be worked out during detailed design)

Adjustable voltage in the range -25.0 to -10.0V with current rating around 15mA for each channel in case it is configured as Voltage input. Provision for adjusting voltage using onboard voltage regulator shall be made available.

It should be possible to configure each channel to be either IEPE or Voltage sensor.

3. Trigger Block :

Should take external input in the range -/+20.0 V (jumper selectable for polarity) (signal consists typically of a dc bias in the range -8.0V to -12.0V and an AC component in the range of -2.0 to -12.0 V pk) when generated by magnetic transducer. When the signal is generated by an optical sensor, the signal levels will be in range of +/- 100-200 mV with no dc bias. The signal either from magnetic or optical transducer has to be converted into corresponding TTL signal for use by processing module for event interval estimation / counting etc.

4. Analog Outputs Block:

No Of channels : 8

This block shall use a suitable DAC with current conversion to 4-20mA supplying a typical load of 300 ohms. V to I conversion may be done using AD694.

Buffered outputs: 8 active buffered outputs identical to eight Analog inputs and one output (TTL) corresponding to Trigger Input.

General


1. For all modules a +24V DC supply shall be provided and required voltages for glue shall be derived by suitable DC-DC converters with low noise suitable to IEPE transducers.
2. Vendor should provide sources in C / assembly for each of the following
 - (a) Configuration routines to control on board functions covering interrupt service routines/ configuration of on-chip registers, controlling GPIO pins, controlling DMA functions, accessing external memory, accessing flash memory etc., for the signal processing and communication processing blocks separately.
 - (b) Example routine for controlling ADC functions.
 - (c) Example routine for controlling Trigger Block.
 - (d) Example routine for Serial communication block (both DSP section and host section)
 - (e) Example routine for DAC block
 - (f) Example routine for Ethernet Communication block (both DSP section and Host Section)
 - (g) Example routine for Display Block.
 - (h) Example routine for Read / Write of external SRAM for processor block.
 - (i) Any other suitable functions as identified during detail design.
3. The system should be capable of working in a temperature environment of 0-60 deg.C.
4. Vendors should submit design documents and PCB layouts at various stages of design and get approval from BHEL.
5. Vendors should submit Gerber files, BOM and films.
6. Vendor should execute NDA at the time of awarding the contract, if required, and should mention the same while quoting.
7. Vendor should have previous experience of designing systems using TMS320F28335. Proof to be submitted without which offer shall be rejected.
8. Vendor should have proven track record of supplied systems to Govt. / PSUs. Proof to be submitted without which offer shall be rejected.
9. Vendor Company should have in existence for at least 5 years and also should have proven track record of development in digital signal processing algorithms/applications/H/W platforms. Proof to be submitted without which offer shall be rejected.
10. Vendor should submit a detail technical proposal for SPM-V2 and AIN-V2 without which the offer shall be rejected.
11. Vendor shall propose a digital re-sampling algorithm for synchronous sampling of signal sampled in the feasible ADC sampling rate. The algorithm should work for signal frequency with a fundamental value in the range 2Hz-100 Hz and with harmonics up to 1 kHz. An offer without this shall be rejected.
12. Should propose an algorithm for filters to adjust the BW of asynchronous sampled signal at fixed rate. An offer without such proposal shall be rejected.



General Terms and Conditions of Enquiry & Contract for the Purchase of Goods/ Services

1. The quotation and any order resulting from this enquiry shall be governed by these General Terms and Conditions of enquiry and contract for the supply of goods and the supplier quoting against this enquiry shall, unless specifically stipulates any different terms or conditions, be deemed to have read and agreed to the same.
2. Sealed quotations in double cover with tenderer's distinctive seal, superscribing enquiry number, date and due date are to be submitted so as to reach on or before due date & time, addressed to **Additional General Manager(MM), Bharat Heavy Electricals Limited, Corporate Research & Development Division, Vikasnagar, Hyderabad, Andhra Pradesh, India – PIN-500 093, India** to be deposited in Tender Box located at Security gate for hand deliveries.
In the case of **Two-part bid**, each inner cover shall clearly be labeled as a) **Technical & Commercial Bid** containing technical data/ drawings/ catalogues/ quality plans along with commercial terms and conditions & copy of the price bid with the price columns left blank (unpriced price bid), b) **Price bid** containing prices quotes. Installation and/or Commissioning charges shall be spelt out in absolutely lucid terms, 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 price bid in any way, the offer will be rejected summarily.** The rate shall be quoted in both figures and in words.
3. 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 agreement copy, the principal should submit quotation to BHEL directly. Foreign suppliers will also indicate in their offer Indian agent's name, if any, and address with percentage of agency commission out of the quoted price, if any. Name and Address of the supplier's Bankers address should also be given
4. **Tender/ Technical bid Opening:** Unless specified otherwise, tenders/ technical bids will be opened on appointed date and time as mentioned in the enquiry or as communicated changed date/time, if any, in the presence of such of those tenderers who may be present.
5. **Late Tender:** Tenders received after tender due date/ time (12:00 hrs) shall be treated as late tenders and will not be considered..
6. The Quotation should be free from overwriting and erasures. Corrections and additions, if any, must be attested. Incase of difference in unit price and corresponding total value or figures or words/text, the buyer (BHEL) reserves the right to select the figures or words/text leading to lowest cost to buyer.
7. Supplier should indicate in the quotation dimensions (Size), weight, rate etc., in the metric system unless the enquiry calls for different unit.
8. **Validity of Quotation:** All quotations shall be kept open for acceptance for a period of ninety days from the date of opening of Tenders/ Technical bid and this shall be deemed to be an express condition of all quotations.
9. In the case of Two-part bid, the vendor should furnish technical 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.
10. **Price Impact:** 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 pricebid opening. Unsolicited bids will not be considered.
11. **Pricebid Opening:** Unless specified otherwise in the enquiry, the Price bids of technically qualified vendors shall be opened with prior intimation in the presence of such of those tenderers who may be present.
12. **Conformity to Specifications:** The material should be of the best quality and shall be conforming to our specification given in our enquiry. Unless otherwise agreed upon by BHEL, no payment shall be due by BHEL in respect of any sample. Offers without details of specifications/ applicable catalogues will not be considered and are liable to be rejected.
13. **Terms of Delivery:** All Suppliers shall quote the lowest prices on EXW/ FOB/ FCA basis in case of foreign suppliers and on ex-works /Free-on-Rail/Road /F.O.R-destination basis in case of Indian/ indigenous Supplies, indicating packing & forwarding charges if any, separately.
14. **Taxes and Duties:** Unless specified otherwise in the enquiry, BHEL do not provide "C" Form as it is engaged in R&D. 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. Being a research institution, BHEL R&D is exempt from Customs duty against direct imports from foreign suppliers and exempt from Central excise duty against indigenous suppliers as per Govt. of India. Hence, suppliers are requested to submit their bids clearly stating applicable taxes/ duties. The quoted taxes/ duties will be taken for cost evaluation & order placement and no change will be entertained later except in the case of changes made by the Government.
15. **Insurance:** Insurance will be arranged by BHEL in case of Ex-Works as well as FCA / FOB basis supplies.
16. **Terms of Payment:** Full payment will be made within 30 days after receipt, inspection and acceptance of the material (and where involved, Erection and commissioning of the material/ equipment at BHEL/Destination) though Electronic Fund transfer (RTGS/NEFT/SEFT) with bank charges, if any, to the supplier's account. For foreign suppliers, the preferred payment term will be on wire transfer basis and bank charges inside India will be to BHEL account and outside India will be to supplier's account.
17. **Pricebid evaluation:** All offers shall be evaluated based on unit price, P&F, taxes/duties, freight charges if any, loading due to non-acceptance of our standard terms. All foreign offers shall be evaluated based on monthly exchange rates announced by Customs dept., Govt. of India as applicable at technical bid opening date. Suppliers shall quote competitive price and best delivery for all the items mentioned in the enquiry. BHEL reserves the right to reject partial quotations and to place order on overall landed cost basis. Correct date of effecting supplies in the event of an order should be indicated in the offer. If the supplier's quoted terms are different from BHEL standard terms , their offers will be evaluated as per Loading factors form sent along with enquiry.
18. **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 and indicate packing charges, if any, separately.
19. **Part/ Split Ordering:** BHEL reserves right to Order part of the item/ quantity of the enquiry and/or split the order among qualified vendors.
20. 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 true copy of Rate contract signed by the supplier should be sent with the quotation.
21. **Inspection:** On receipt, the goods shall be subjected to inspection and also test, if necessary, and our decision regarding the acceptability of the goods shall be final and binding on the suppliers.
22. **Penalty for late delivery:** The time stipulated for delivery of goods shall be deemed to be the essence of the contract and delivery must be completed within the stipulated date/s. In the event of supplier's failure to supply the goods by the stipulated date/s, a penalty of ½% per week for the delayed no of weeks or part thereof for the undelivered portion of PO subject to a maximum of 10% of total order value shall be levied at the discretion of BHEL.
23. **Withdrawal from the Contract:** 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.
24. **Guarantee/ Warranty certificate and Manufacturer's Test report:** Invariably in all cases where it is so stipulated, the supplier should furnish Guarantee/ Warranty certificate valid for a period of 18 months from date of supply or 1 year from the date of receipt, acceptance and commissioning (or more, if provide by oem) whichever earlier and manufacturer's Test report along with the goods, failing which, BHEL shall have the right to reject the goods.
25. **Recovery of Dues:** BHEL shall recover any amount due from the supplier or any amount outstanding to the credit of the supplier with BHEL R&D unit or any other BHEL unit(s) and/or by legal action.
26. **Arbitration & Forum for Legal Proceedings:** All disputes arising in connection with indigenous/ foreign supplies shall be settled through arbitration held at Hyderabad, AP, India and arbitrator shall be appointed by BHEL from the enlisted panel. The Courts at Secunderabad/ Hyderabad, AP, India shall have jurisdiction in respect of any suit or other legal proceeding arising from or relating to this contract

The rights and remedies of BHEL stated in these General terms and conditions shall be in addition and supplemental to its rights and remedies under law and custom or usage of trade or business and shall in no way be deemed to limit, curtail, supercede or derogate from its said rights and remedies.

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	SAME	NIL
PAYMENT AGAINST PROFORMA INVOICE / DESPATCH DOCUMENT OR CASH ON DELIVERY (COD) / CASH AGAINST PROOF OF DESPATCH				11% PER ANNUM INTEREST ON THE TOTAL PO VALUE FOR ONE MONTH	
ADVANCE PAYMENT WITH BANK GUARANTEE				11% PER ANNUM INTEREST ON THE TOTAL VALUE FOR OFFERED DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH	
PART ADVANCE PAYMENT WITH SUPPORTING BANK GUARANTEE AND BALANCE WITH IN 30 DAYS				11% PER ANNUM INTEREST ON ADVANCE FOR OFFERED DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH	
PART ADVANCE PAYMENT WITH SUPPORTING BANK GUARANTEE AND BALANCE ON RECEIPT OF MATERIAL				11% PER ANNUM INTEREST ON ADVANCE FOR OFFERED DELIVERY PERIOD (Rounded off to nearest month) + 1 MONTH AND 11% PER ANNUM INTEREST ON BALANCE AMOUNT FOR ONE MONTH	
A.2	SUPPLY OF EQUIPMENT INCLUDING E&C	PAYMENT TERMS (THE SUPPLIER MUST SUBMITT A PERFORMANCE BANK GUARANTEE (PBG) FOR 10% OF THE BASIC VALUE OF THE ORDER VALID FOR WARRANTY PERIOD.)	90% PAYMENT, WITH IN 30 DAYS FROM THE DATE OF RECEIPTAND ACCEPTANCE OF MATERIAL . BALANCE 10% WITH IN 30 DAYS OF COMPLETION OF E&C AND ON SUBMISSION OF PERFORMANCE BANK GUARANTEE (PBG) FOR 10% OF BASIC PO VALUE.	SAME	NIL
100% PAYMENT WITH IN 30DAYS AFTER COMPLETION OF SUPPLIES AND ERECTION AND COMMISIONING				NIL (PBG WILL NOT BE INSISTED FROM THE SUPPLIER)	
90% PAYMENT AGAINST PROFORMA INVOICE/ DESPATCH DOCUMENT OR CASH ON DELIVERY (COD) / CASH AGAINST DESPATCH AND BALANCE 10% WITH IN 30 DAYS OF E&C				11% PER ANNUM INTEREST ON 90% OF THE VALUE OF PO FOR ONE MONTH	
90% PAYMENT AGAINST PROFORMA / DESPATCH DOCUMENT OR CASH ON DESPATCH (COD) / CASH AGAINST DESPATCH AND BALANCE 10% AFTER COMPLETION OF E&C				11% PER ANNUM INTEREST ON TOTAL PO VALUE FOR ONE MONTH	
90% ADVANCE PAYMENT WITH BANK GUARANTEE AND BALANCE 10% WITH IN 30 DAYS OF E&C				11% PER ANNUM INTEREST ON 90% OF THE TOTAL VALUE FOR DELIVERY PERIOD(ROUNDED OF TO THE NEAREST MONTH) + 1 MONTH	
PART ADVANCE (x%) PAYMENT WITH SUPPORTING BANK GUARANTEE AND (90 - x) % PAYMENT ON RECEIPT OF MATERIAL AND 10% PAYMENT WITH IN 30 DAYS AFTER E&C				11% PER ANNUM INTEREST ON THE ADVANCE AMOUNT FOR THE DELIVERY PERIOD/ROUNDED OF TO THE NEAREST MONTH)+ 1 MONTH AND 11% PER ANNUM INTEREST ON (90-X)% PAYMENT FOR ONE MONTH	
PART ADVANCE (x%) PAYMENT WITH BANK GUARANTEE AND (90 - x) % PAYMENT ON RECEIPT OF MATERIAL AND 10% PAYMENT AFTER E&C				11% PER ANNUM INTEREST ON THE ADVANCE AMOUNT FOR THE DELIVERY PERIOD/ROUNDED OF TO THE NEAREST MONTH)+ 1 MONTH AND 11% PER ANNUM INTEREST ON BALANCE AMOUNT	

SLNO	SCOPE	COMMERCIAL TERMS	BHEL STANDARD TERM	AS OFFERED	LOADING FACTOR FOR NON COMPLIANCE TO BHEL STANDARD TERMS
B. FOR FOREIGN PURCHASES (IMPORTED)					
B.1	SUPPLY OF EQUIPMENT	PAYMENT TERMS.	AGAINST SIGHT DRAFT ON PRESENTATION OF DESPATCH DOCUMENTS VIZ INVOICE, AWB ETC TO OUR BANKERS (ALL BANK CHARGES INSIDE INDIA TO BHEL ACCOUNT AND OUTSIDE INDIA WILL BE TO THE SUPPLIER'S ACCOUNT)	SAME	NIL
				100% PAYMENT AFTER RECEIPT AND ACCEPTANCE OF MATERIAL AT BHEL R&D BY WIRE TRANSFER. (DESPATCH DOCUMENTS WILL BE SENT TO BHEL R&D DIRECTLY ALONG WITH BANK DETAILS)	NIL
				LC PAYMENT	11% PER ANNUM INTEREST ON THE BASIC VALUE FOR ONE MONTH
				ADVANCE BY WIRE TRANSFER WITH BANK GUARANTEE	11% PER ANNUM INTEREST ON THE BASIC VALUE FOR DELIVERY PERIOD + 1 MONTH
				PART ADVANCE (x%) PAYMENT WITH SUPPORTING BANK GUARANTEE AND BALANCE PAYMENT AFTER RECEIPT OF MATL	11% PER ANNUM INTEREST ON THE ADVANCE AMOUNT FOR THE DELIVERY PERIOD+ 1 MONTH AND 11% PER ANNUM INTEREST ON BALANCE AMOUNT FOR ONE MONTH
B.2	SUPPLY OF EQUIPMENT INCLUDING E&C	PAYMENT TERMS (THE SUPPLIER MUST SUBMITT A PERFORMANCE BANK GUARANTEE (PBG) FOR 10% OF THE BASIC VALUE OF THE ORDER VALID FOR WARRANTY PERIOD.)	90% PAYMENT WILL BE MADE WITH IN 30 DAYS FROM THE DATE OF RECEIPT OF MATERIAL ON ACCEPTANCE. AND BALANCE 10% WITH IN 30 DAYS OF COMPLETION OF E&C AND ON SUBMISSIONOF PERFORMANCE BANK GUARANTEE FOR 10% OF BASIC VALUE	SAME	NIL
				LC PAYMENT FOR 90% OF THE ORDER VALUE + 10% AFTER E&C WITH IN 30 DAYS	11% PER ANNUM INTEREST ON 90% OF BASIC VALUE FOR ONE MONTH
				90% OF BASIC VALUE AS ADVANCE BY WIRE TRANSFER WITH BANK GUARANTEE AND BALANCE 10% AFTER E&C BY WIRE TRANSFER WITH IN 30 DAYS	11% PER ANNUM INTEREST ON 90% OF THE BASIC VALUE FOR DELIVERY PERIOD + 1 MONTH
				x% OF TOTAL VALUE AS ADVANCE PAYMENT WITH BANK GUARANTEE AND BALANCE (I.E. 90-X)AFTER RECEIPT OF MATL BY WIRE TRANSFER AND 10% AFTER COMPLETION OF E&C	11% PER ANNUM INTEREST ON THE ADVANCE AMOUNT FOR THE DELIVERY PERIOD+ 1 MONTH AND 11% PER ANNUM INTEREST ON BALANCE AMOUNT OF 90% OF ORDER VALUE (I.E. 90-X%)
C. PERFORMANCE BANK GUARANTEE, PBG (COMMON FOR INDIGENOUS AND IMPORTS)					
C.1		PERFORMANCE BANK GUARANTEE	PBG FOR 10% OF THE BASIC PO VALUE SHALL BE FURNISHED IN BHEL PRESCRIBED FORMAT.	IF NOT AGREED	10% OF THE BASIC MATERIAL COST
D. PENALTY (COMMON FOR INDEGENOUS & IMPORTS)					
D.1		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% VALUE OF UNDELIVERED PORTION OF BASIC MATERIAL COST WILL BE APPLICABLE	AGREED	NIL
				IF NOT AGREED	10% OF THE BASIC MATL COST
				IF AGREED FOR 5%	5% OF THE BASIC MATERIAL COST
				OTHER THAN THE ABOVE	10% MINUS THE AGREED MAX PERCENTAGE OF THE BASIC MATERIAL COST WILL BE LOADED.



RD:MPX:F-17

BHARAT HEAVY ELECTRICALS LIMITED
CORPORATE R&D Division
Vikasnagar, Hyderabad – 500093, India.

Suppliers' compliance statement to basic conditions of enquiry
 (to be submitted along with Technical & Commercial bid)

Enquiry number::

Enquiry date::

(In case Order to be placed on Indian supplier in Indian currency)

	BHEL R& D's terms & Conditions	Supplier's compliance (indicate Yes/No. if 'No', state terms desired)
1) Validity of offer	Unless specifically mentioned in the enquiry, 90 days from the tender opening date	
2) Delivery requirements	Free delivery at our stores or FOR destination (or as indicated in the enquiry)	F.O.R Delivery: within ___ weeks from PO date
3a) Warranty	Unless specifically mentioned in the enquiry, all supplied items to be provided with warrantee for one year (or more, if provided by the OEM) from the date of acceptance/commissioning. In case of equipment involving erection and commissioning, warrantee shall be for 18 months from the date of despatch or 12 months from the date of commissioning, whichever is earlier	
3b) Manufacturer's Test report	Manufacturer's Test Report / Manufacturer's Test Certificate to be provided with Goods	
4) Terms of payment	Unless specifically mentioned, full payment will be made within thirty days after receipt, inspection and acceptance of the material at BHEL R&D (and where involved, erection and commissioning of the material/equipment at BHEL/destination), by EFT/RTGS with bank charges, if any, to supplier's account.	
5) Taxes & Duties	Unless specifically mentioned in the enquiry, we do not provide 'C' form. Supplier to specify rates of taxes/ duties element wise on the price quoted and related percentages. Please mention "NIL" if exempted and N.A if not applicable.	ED+ Cess : % Extra/ inclusive/ Nil/ NA VAT/ CST: : % Extra/ inclusive/ Nil/ NA Service Tax: : % Extra/ inclusive/ Nil/ NA
6) Penalty for late delivery	0.5% per week beyond the delivery date on undelivered portion subject to a maximum of 10% of the total order value	

* **BHEL R&D reserves the right to reject any offer due to non-compliance with the above Terms & conditions and/or non-receipt of this form in duly filled condition**

* Any other elements of cost in addition to the above may please be specified in detail.

(Signature and Stamp/Seal of Vendor)



RD:MPX:F-13

BHARAT HEAVY ELECTRICALS LTD.

Corp. R&D DIVISION

VIKAS NAGAR,

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/ Secunderabad:

Phone Nos.:

Fax No.:

Email:

Contact person:

Mobile No.:

2.0. TYPE OF ORGANIZATION:

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.

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		
7		

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.

AUTHORISATION LETTER FOR E-PAYMENT/ NEFT / RTGS

(PLEASE FILL UP THE FORM COMPLETELY IN CAPITAL LETTERS ON YOUR COMPANY LETTERHEAD ONLY)

Type of Request (Tick one)	NEW	CHANGE
----------------------------	-----	--------

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

1	Company Name	
2	Address	
3	City with PIN Code	
4	State	
5	PAN Number	
6	Name of Contact Person	
7	Phone no. with STD Code	
8	Fax No. with STD Code	
9	Email ID	
10	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:

Authorised Signatory
Designation :

COMPANY SEAL



RD:MPX:F-18

BHARAT HEAVY ELECTRICALS LIMITED
CORPORATE R&D Division
Vikasnagar, Hyderabad, Andhra Pradesh, India – 500093

IMPORTED

Suppliers' compliance statement to basic conditions of enquiry
 (to be submitted along with Technical & Commercial bid)

Enquiry number:**Enquiry dt:**
(In case Order to be placed on the Principal and foreign currency)

Condition	BHEL R& D's terms	Supplier's compliance (indicate Yes/No. if 'No', state terms desired)
1. Validity of offer	90 days from the tender opening date (or as per enquiry)	
2. Delivery requirements	FCA – Nearest International Airport (or as indicated in the enquiry)	F.C.A International Airport. Delivery: within __ weeks from PO date
3a) Warranty	Unless specifically mentioned in the enquiry, all supplied items to be provided with warrantee for one year (or more, if provided by the OEM) from the date of acceptance/ commissioning. In case of equipment involving erection and commissioning, warrantee shall be for 18 months from the date of dispatch or 12 months from the date of commissioning, whichever is earlier	
3b) Manufacturer's Test Report	Manufacturer's Test Report / Manufacturer's Test Certificate to be provided with Goods	
4. Terms of payment	Wire Transfer within 30 days of receipt of Material. All bank charges inside India will be to BHEL R&D account and outside India will be to the supplier's account.	
5. Agency commission	Pl specify Indian agency commission charges, if any, in percentage of quotation. The same shall be paid to the agency in Indian Currency only.	
6. Erection/Commission	As per enquiry	
7. Documentation	As per enquiry	
8. Insurance	BHEL will arrange Insurance based on intimation to our Insurance agency. Address of the agency will be mentioned in the Purchase Order.	
9. Penalty for late delivery	0.5% per week beyond the delivery date on undelivered portion subject to a maximum of 10% of the total order value.	

* BHEL R&D reserves the right to reject any offer due to non-compliance with the above conditions and/or non-receipt of this form in duly filled condition

* Any other elements of cost in addition to the above may please be specified in detail

(Signature and Stamp/ Seal of Vendor)



RD:DP:MPX:F-14

BHARAT HEAVY ELECTRICALS LTD.
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:

1.1NAME OF COMPANY

1.2DETAILS OF HEAD OFFICE:

ADDRESS :
TELEPHONE :
FAX :
.EMAIL :
.WEB SITE :

1.3DETAILS OF FACTORY/WORKS:

ADDRESS :
TELEPHONE :
FAX :
.EMAIL :
.WEB SITE :

1.4DETAILS 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
E-MAIL

1.7 YEAR OF ESTABLISHMENT

1.8 PRODUCTION CAPACITY PER ANNUM

1.9 PARTICULARS OF PRODUCT INCLUDING
SPECIFICATION AND RANGE OFFERED
FOR REGISTRTION
(Attach brouchers and catalogues)

1.10 NAME(S) OF BANKERS

1.11 BANKER'S CERTIFICATE

1.12 PORT OF LOADING

1.13 NEAREST AIRPORT

1.14 NAME OF THE INDIAN AGENT, IF ANY
WITH AUTHORIZATION LETTER

2.0 FINANCIAL INFORMATION

2.1 ...TOTAL CAPACITY

2.2 ...ANNUAL TURN OVER FOR LAST 3 YEARS

2.3 ...WHEHER CREDIT LICENSE ACCEPTABLE YES/NO

3.0 QUALITY MANAGEMENT SYSTEMS ENCLOSED FORMAT PART-B

3.1 EXPERIENCE LIST FOR SAME/ SIMILAR ITEMS
TO BE ENCLOSED

4.0FUTURE EXPANSION PLANS: (Give details)

5.0 LIST OF ENCLOSURES: Including brouchers, catalogues, technical literature etc)

6.0 ANY OTHER INFORMATION

SIGNATURE OF SUPPLIER (Authorized signatory)

NAME

DESIGNATION

DATE

.....OFFICIAL SEAL

Note: 1. BHEL Reserves the right to take penal action as deemed fit if any of the information provided by the vendor is found to be incorrect.
2. Please attach separate sheets, if space found is inadequate