



Bharat Heavy Electricals Limited

Centralised Stamping Unit, Jagdishpur

Tender No.:- TE/530130001/C-08

Date: 29/04/2013

TENDER NOTICE

Sealed Tenders are invited in Two-part bid system with PQR for Supply, Erection, commissioning and proving of Automation Package for 500T Mechanical Power Press at CSU, Jagdishpur as per below details:

GENERAL:

• Submission of Tender	Till 14.30 Hrs. on 17/06/2013
• Opening of Tech. / comm. Bid	at 1500 Hrs. on 17/06/2013
• Bids can be deposited in the Tender Box, kept at	Administrative Building, Centralised Stamping Unit, Bharat Heavy Electricals Ltd. Industrial Area Jagdishpur Dist. - Amethi, Uttar Pradesh (Pincode – 227817), India

• Instruction/procedure for submission of bids:

The offer is to be submitted by the vendors in Two-parts in sealed envelop as per following details:

1. **Techno-Commercial Bid to be kept in Envelop No. 1:**
Super scribe this envelope as “TENDER ENQUIRY NO. TE/530130001/C-08 DATED 29/04/2013 - TECHNO-COMMERCIAL BID” with due date of opening.
2. **Price bid to be kept in Envelop No. 2:**
Super scribe this envelope as “TENDER ENQUIRY NO. TE/530130001/C-08 DATED 29/04/2013 –PRICE BID”.
3. **Envelope no.1 & no.2 are to be kept in a bigger envelope no.3: Super scribe this envelop as “TENDER ENQUIRY NO. TE/530130001/C-08 DATED 29/04/2013” with due date of opening.**
4. Offers with deviations from terms and conditions & specification of the tender may not be considered.
5. BHEL takes no responsibility for any delay / loss of documents or correspondence sent by courier or post.
6. BHEL reserves the right to accept or reject any of the bid / all bids with or without deviation, or cancel / withdraw the invitation for bid without assigning any reason whatsoever and in such case no bidder shall have any claim arising out of such action by BHEL.
7. Duly completed offers should reach following address on or before due date and time to

Office of Sr. DGM
CSU&FP, BHEL,
Industrial Area Jagdishpur,
Dist. Sultanpur-227817, UP



Bharat Heavy Electricals Limited Centralised Stamping Unit, Jagdishpur

8. In case you are not quoting, please send your regret letter positively for our reference.
9. Tender received after the specified time of their "SUBMISSION" will be treated as "late tender" and shall not be considered under any circumstances.
10. Supplier shall quote for all the items in the enclosed price bid format only.

The tender document consists of following sections:

Section – 1: Techno-Commercial bid which consists of followings. Vendor to put the below documents in Envelop-1.

A. Pre-Qualifying requirement (Technical & Commercial)	Details required as per Pre-Qualifying requirement to be submitted.
B. Item Description	Duly sealed and signed copy of NIT to be submitted.
C. Technical Condition	
D. Special Instructions	
E. Technical Specification	Duly filled Technical Specification with each page sealed and signed to be submitted
F. Commercial requirement	
Special Conditions of Contract (SCC)	Duly sealed and signed copy of SCC to be submitted.
General Conditions of Contract –A & B (GCC-A & B)	Duly sealed and signed copy of GCC-A & B to be submitted.
G. Tender Cost (Rs. 2,000/-)	Through Demand Draft in favour of "Bharat Heavy Electricals Limited" payable at State Bank of India, IGFCC Branch, Jagdishpur Industrial Area, U.P., Distt. Sultanpur-271817, INDIA (Branch Code: 9072).
H. Bid Security (Rs. 5,00,000/-)	In form of Bank Guarantee as per format attached at Annexure-1 of GCC-A
NOTE: <ul style="list-style-type: none">➤ Un-priced copy of Price Bid to be submitted along with Part-1 offer i.e., Techno-commercial offer.➤ List of tools, accessories & spares as per Cl. No. 9, 10 & 11 of technical specification.	

Section – 2: Price bid format

Vendor to put duly filled Price Bid Format & item-wise prices of tools, accessories & spares as per Cl. No. 9, 10 & 11 of technical specification in Envelop-2.



Bharat Heavy Electricals Limited
Centralised Stamping Unit, Jagdishpur

SECTION-1

A. PRE-QUALIFYING REQUIREMENT

• TECHNICAL EVALUATION CRITERIA / QUALIFYING REQUIREMENT:

Only those vendors, who have supplied at least one such Automation Packages of similar capacity or two such Automation Package of half the capacity in the past ten years and such package is working satisfactorily for more than two year after commissioning, should quote. The following information is to be submitted by the vendor about the companies where similar package have been supplied. This is required from all the vendors for qualification of their offer:

1. Name of the customer / company where similar machine is installed.
2. Complete postal address of the customer
3. Year of commissioning.
4. Name and designation of the contact person of the customer.
5. Phone, FAX no. and email address of the contact person of the customer.
6. Performance certificate from the customers regarding satisfactory performance of machine supplied to them.

• COMMERCIAL EVALUATION CRITERIA / QUALIFYING REQUIREMENT:

Only Bidders who have previous experience in the work of the nature and description detailed in the Specifications of the Tender, who continue to be in business in this field and who are financially sound to undertake the work, are expected to be short listed. Offer from Bidders who do not have proven and established experience in the field is not likely to be considered. The following information is to be submitted by the vendor about their company:

1. Balance Sheet of last three years (i.e., FY 2011-12, 2010-11 & 2009-2010 to check the Financial Soundness of the company.
2. A brief description about Organizational Capability.



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Centralised Stamping Unit, Jagdishpur

ITEM DESCRIPTION:

SL. NO.	ITEM DESCRIPTION	UNIT	QTY. REQD.
1.	Supply, Erection, Commissioning and Proving of Automation Package for 500T Mechanical power Press at CSU, Jagdishpur as per enclosed specification.	No.	1

B. TECHNICAL CONDITIONS:

S. No	Description	Required
1.	Sample requirement with offer	NO
2.	Pre Dispatch Inspection	YES
3.	Test Certificates	NO
4.	Guarantee Certificate	YES
5.	Calibration Certificate	NO
6.	Spares & Tools	YES
7.	Job Proving	YES
8.	Training	YES

C. SPECIAL INSTRUCTION:

1. All taxes/duties/levies etc. must be specified separately in amount or in percentage. Incomplete offer shall not be acceptable.
2. Duly filled & signed with company seal on all documents to be submitted along with offer.
3. Please quote price in figures & words both. In case the prices quoted in words and figures are different, the value indicated in words will be considered for evaluation and establishing L1 status.

D. TECHNICAL SPECIFICATION:

As per attached specification.

E. COMMERCIAL REQUIREMENTS:

As per attached SCC, GCC-A & B.

SECTION-1

As per attached Price bid format.

PRICE BID FORMAT

Tender No. & Date:
Bidder's Offer No. & Date:

S No	Description of item	Unit	Quantity	Price, Ex-Works		Excise Duty	Sales tax	Any Other Taxes/ Charges - Please Specify	Price in Indian Rs.	
				Rate	Total Price				Freight	FOR BHEL Price
1	Supply, Erection, Commissioning and Proving of Automation Package for 500T Mechanical power Press at CSU, Jagdishpur as per enclosed specification.	Number	1							
2	Supply of tools, accessories & spares as per Cl. No. 9, 10 & 11 of technical specification. Item wise price to be given separately.	Set	1							
3	Total Price (1 + 2)									
4	Installation & Commissioning services									
5	Total Price including Installation & commissioning (3+4)									

Note:

1. Transit Insurance shall be done by Vendor
2. Unpriced Price Bid to be Submitted along with Part-I, Techno – Commercial Bid
3. Detailed list of Tools, accessories & Spares to be given along with Part-I, Techno – Commercial Bid
4. The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, in case the item is “not applicable”.



SPECIAL CONDITIONS OF CONTRACT (SCC)

1. SCOPE OF SUPPLY & SERVICES

- 1.1. The scope of supply and services consists of design, manufacture, testing at Vendor's works, supply, installation, testing and commissioning at works of BHEL
- 1.2. The Vendor shall also quote for the following as per Section III (Price Format) only:
 - 1.2.1. Recommended spares for 2 (two) years (or as specified in price Schedule Format) of normal operation.
- 1.3. The scope of supply and services is given in detail in Technical Specification
- 1.4. Any item not included in the prescribed price schedule format and shown separately will not be taken in to account and shall be ignored while evaluation.
- 1.5. Unsolicited Items (Bidders Optional Item) shall also be ignored while evaluation.

2. COMPLETION SCHEDULE

- 2.1. The Equipment with its auxiliaries and spare parts shall be supplied FOR Site BHEL Jagdishpur ***within Three (3) months*** from the date of Letter of Intent (LOI) / Purchase Order (PO).
- 2.2. After receipt of the Equipment at BHEL Works and availability of the erection fronts, BHEL will inform the Vendor about readiness for start of installation work in writing. Vendor shall depute his staff for installation & commissioning work within 2 (two) weeks of the date of issue of letter.
- 2.3. The work of installation & commissioning shall be completed by the Vendor ***within Three (3) weeks*** from the date of issue of letter informing readiness for installation/ availability of inputs as per agreed terms. The date of completion of installation & commissioning shall be the date on which acceptance of Equipment is given by BHEL.

3. PRICES

- 3.1. The prices shall be **firm** and shall be quoted in INR as per Price Schedule only.
- 3.2. The price for installation and commissioning shall be inclusive of all taxes and duties **except Service Tax**. Service tax on installation and commissioning, if applicable, will be payable extra.
- 3.3. Any other taxes and duties payable as extra to the quoted price shall be specifically stated in the Offer. The Purchaser will not be liable for payment of taxes and duties not specifically mentioned in the Offer.



- 3.4. The excise duty and sales tax/ VAT will be paid at the rate applicable on the day of dispatch. However, if the Equipment is delayed and amount of excise duty and/ or sales tax/ VAT on the day of dispatch is higher than the amount applicable on the scheduled delivery date, the amount applicable on the scheduled delivery date will be payable.

4. TERMS OF PAYMENT

- 4.1. 80% payment (alongwith 100% of taxes and duties) against despatch documents and balance 20% payment after acceptance of the Equipment at BHEL works and after submission of letter of Acceptance of Equipment and Performance Bank Guarantee. Freight charges shall be payable separately after receipt of material at site.
- 4.2. Lump sum installation and commissioning charges shall be payable after acceptance of the Equipment at BHEL works after acceptance of the Equipment at BHEL works and after submission of letter of Acceptance of Equipment.
- 4.3. Installation and commissioning charges will be released after deduction of Income Tax as per the Govt. of India rules in force and after deduction of Works Contract Tax as per Govt of UP rules, if applicable. The Tax Deduction at Source (TDS) certificate will be issued by BHEL. Applicable service tax on Installation & Commissioning charges, if any, will be payable extra.

5. TAXES AND DUTIES ON INSTALLATION & COMMISSIONING

5.1. Service Tax

- 5.1.1. The Service Tax on installation & commissioning services as applicable for this Contract will be paid by Purchaser separately. Therefore contractor's price/ rates shall be **exclusive of service tax** on output services.
- 5.1.2. The Indian Contractor shall submit to Purchaser documentary evidence of service tax registration and remittance records of such tax immediately after depositing the tax with the concerned authorities. Contractor shall obtain prior written consent from Purchaser before billing the amount towards such taxes.
- 5.1.3. In case the Purchaser is asked to deduct any such tax and deposit the same with the appropriate authorities, the proof of such payment shall be provided to the Contractor. However, any penalty etc for any default by the Contractor imposed by the authorities shall be the sole responsibility of the Contractor.

5.2. Works Contract Tax

- 5.2.1. Although it is expected that the works contract tax will not be applicable as per laws in force in UP state, the Contractor shall make himself fully aware of the taxation requirements and take appropriate steps for complying with the regulations such as registering with the sales tax authorities of the state and paying the required tax, if applicable. Deduction of tax at source shall be made by the Purchaser, if required by law.



Special Terms and Conditions:

- 5.2.2. Contractor has to make his own arrangement at his cost for completing the formalities, if required, with Sales Tax Authorities, for bringing their materials, plants, and equipment at site for the execution of the work under this Contract and their return after execution of the work to the satisfaction of the Purchaser.

5.3. Income Tax

- 5.3.1. Income Tax at the prevailing rate on gross value of work done and applicable surcharge/ cess shall be deducted from the bills as per relevant rules unless exempted by the Income Tax Authorities.

6. NEW TAXES/ LEVIES

- 6.1. In case the Indian Government (Central/ State) imposes any new tax/ levy on the output services/ goods / work after the award of work, the same shall be reimbursed by BHEL at actuals. Similarly, any statutory variation on such score shall be to the account of BHEL. All necessary documents as required by BHEL shall have to be provided by the Contractor. However, in the event of delay in work execution attributable to the Contractor, the new taxes/ levies imposed during the delay period shall not be reimbursed to the Contractor.
- 6.2. In case any tax/levy/duty etc becomes applicable after the date of Bidder's offer, the Bidder/ Contractor must convey it's impact on his price duly substantiated by documentary evidence in support of the same before opening of the Price Bid. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.
- 6.3. No reimbursement on account of increase/ decrease in the rate of taxes, levies, duties etc on input (goods/ services/ work) shall be made. Bidder has to make his own assessment of the impact of future variation if any, in rates/ duties/ levies etc in his price bid.

7. BANK GUARANTEES

- 7.1. The value of Contract Performance Bank Guarantee (CPBG) shall be 10% of the Contract Price.
- 7.2. The value of Performance Bank Guarantee (PBG) shall be 10% of the Contract Price.
- 7.3. The 'Contract Price' shall mean the total price to be paid by the Purchaser to the Vendor for the supply & services to be provided by the Vendor to the Purchaser as per Contract. It may also be referred as 'Order Value'.

8. EQUIPMENT GUARANTEE

- 8.1. The Equipment shall be guaranteed by the Vendor for a period of 24 (twenty four) months from the date of acceptance of the machine at BHEL.

9. PENALTY FOR DELAY



Special Terms and Conditions:

- 9.1. The delivery of Equipment shall be made within the time prescribed. Failure to dispatch the Equipment in time as per the delivery specified above would make the Vendor liable to an un-conditional penalty at the rate of one half percent (1/2%) of the Order value for delay of each week (or part thereof) subject to a maximum of ten percent (10%) of the Order Value.
- 9.2. The installation & commissioning of the Equipment shall be completed within the time prescribed. Failure to complete the work as per the time specified above would make the Vendor liable to an un-conditional penalty at the rate of one half percent (1/2%) of the Order value for delay of each week (or part thereof) subject to a maximum of ten percent (10%) of the Order Value.
- 9.3. However, if the supply of Equipment is delayed and the work of installation & commissioning of the machine is completed ahead of schedule, the penalty for delay will be reduced to the extent of the time saved during installation & commissioning.

10. VARIATION IN SCOPE OF WORK

- 10.1. BHEL reserves the right to add or delete items of scope of work depending upon the final requirement. For such addition or deletion the Contract price shall be adjusted based on the quoted unit price. The price quoted by the Vendor shall be valid for such variation.

11. EXTRA WORK

- 11.1. The Vendor shall, when requested by BHEL, perform extra work at mutually agreed rates.

12. INSURANCE

- 12.1. Insurance shall be arranged by vendor

13. EVALUATION

- 13.1. On the basis of landed cost to BHEL, CSU Stores, Jagdishpur inclusive of loading, if any

14. VALIDITY OF OFFER

- 14.1. Offer validity will be for 90 days from date of opening of Tender enquiry

15. REJECTIONS

- 15.1. The supplier shall arrange replacement/repair within one month from the date of rejection intimation upon failure on supplier's part to comply. BHEL will take whatever appropriate action they may think fit in addition to repair/return of rejected material at the cost and risk of the supplier.

16. RISK PURCHASE



- 16.1. In case of delays in supply of materials/defective materials not fulfillment of any other terms and conditions given in the purchase order, the purchase may cancel the full or part thereof, and may also make purchase of such material from elsewhere/alternate source at the risk and cost of supplier.

17. ARBITRATION

- 17.1. Any dispute arising out of this contract shall be referred to the sole arbitration of GM- CSU & FP, BHEL, Jagdishpur. Its award shall be final and binding on the parties. The venue of arbitration in all cases shall be at Administrative building, BHEL, FP, Jagdishpur.

18. JURISDICTION

- 18.1. In case of any suit or other legal proceedings arising under or relating to the contract, the Jurisdiction of Amethi (UP) district court shall apply.

19. CONSIGNEE

- 19.1. The Stores Officer, CSU, BHEL, IA Jagdishpur, Dist.-Amethi-227817 (UP)

20. BILLING ADDRESS

- 20.1. The Purchase officer, CSU&FP, BHEL, IA Jagdishpur, Dist.-Amethi-227817 (UP)

21. DOCUMENTATION


- 21.1. One set of all required documents (ink signed) must accompany the supply and one set (Ink-Signed) to be sent to Purchase officer before the dispatch.

22. GENERAL

- 22.1. The evaluation of the offer will be strictly based on information submitted by the bidder. In view of this the bidder is requested to go through tender document carefully and furnish all details clearly. Missing information may not be asked by BHEL before evaluating the offer.
- 22.2. The vendor shall check that his offer is complete in all respect as per check list given in Annexure SCC-1. A signed copy of Annexure SCC-1, duly filled in, shall be submitted along with the Offer.
- 22.3. Unpriced Price Bid to be submitted along with Part-I offer along with detailed list of spare parts quoted.



Check List for Commercial Terms and Conditions (To be filled and submitted along with Part-I Offer)			
Sr. No.	DESCRIPTION OF BHEL REQUIREMENT	SPECIFIED / CONFIRMED BY VENDOR	REMARKS
1	Technical confirmation to BHEL's Specification as called for in BHEL Format is furnished.		
2	Prices have been quoted item wise only as per the format in Section III.		
3	Prices have been quoted on "FIRM PRICE" basis only.		
4	Installation & commissioning charges have been mentioned in the offer.		
5	Validity of offer has been mentioned in the Offer.		
6	Delivery period from the date of Letter of Intent (LOI) / Purchase Order (PO) has been mentioned in the offer.		
7	Confirmation for acceptance of Penalty has been given in the offer.		
8	Confirmation for acceptance of the Risk Purchase clause has been given in the offer.		
9	Confirmation for acceptance of Payment terms is available in the offer:		
10	Confirmation to provide Contract Performance Bank Guarantee (CPBG) has been given in the Offer.		
11	Confirmation for submission of Performance Bank Guarantee (PBG) as available in the offer.		
12	Confirmation that any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Jagdishpur basis is available in the offer.		
13	Confirmation that the Equipment ordered will be inspected and proved at vendor's works prior to dispatch. However final inspection and acceptance of equipment will be after installation at BHEL, Jagdishpur.		
14	Confirmation that the equipment shall be guaranteed for a period of 24 (twenty four) months from the date of acceptance of the machine at BHEL.		
15	Confirmation that the vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost.		
16	Other: BHEL may decide to process the case through Reverse Auction. Vendor to give their confirmation for participation.		
17	Country of origin of Equipments		
NOTE: It is confirmed that all the terms and conditions stipulated in the Tender Enquiry have been fully understood by us and all clarifications & details have been obtained.			
Signature & Office Seal of the bidder			

	<u>BHARAT HEAVY ELECTRICAL LIMITED</u>				
	<u>Centralised Stamping Unit, Jagdishpur</u>				
				Date :	
<u>SPECIFICATION FOR AUTOMATION OF 500T MECHANICAL PRESS</u>					
	NOTE:-				
	1. Vendor must submit complete information against all clauses.				
	2. The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.				
	3. The offer and all documents enclosed with offer should be in English language only.				
NAME & ADDRESS OF THE VENDOR :			NAME & ADDRESS OF THE INDIAN AGENTS (If Any) :		
TELEPHONE NOS.:			TELEPHONE NOS.:		
FAX NOS.:			FAX NOS.:		
E-MAIL ADDRESS :			E-MAIL ADDRESS :		
DUNS NO.(Of Duns & Bradstreet of USA)					
SCOPE: SUPPLY, INSTALLATION & COMMISSIONING OF AUTOMATION PACKAGE OF 500T MECHANICAL PRESS COMPLYING WITH SPECIFICATION AS BELOW					

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
1.0	PURPOSE & WORK PIECE MATERIAL				
1.1	The automation package shall be capable of de-coiling the steel coils, it should have a coil straightening unit, a feeding unit for the precise feeding of the electrical sheet steel in the coil form and unloading device for punched laminations with all operations with CNC controls.	Vendor			
2	SPECIFICATION:				
2.1	COIL FEED EQUIPMENT				
2.1.1	The Feed Line shall be used for feeding of strip material into the Press. The equipment shall consist of Coil Loading Station, Decoiler, Straightener, Loop Equipment and Control Panels. The coil feed equipment should be synchronised with main press RAM such that when the press moves to the TDC the coil feed equipment should feed the predefined length of coil into the RAM area and when the roll feed is complete it should give signal to operator panel to take the next stroke. It should be possible to define the roll feed length for different kind of tools.	Vendor			
2.1.2	Technical Data:				
	Coil width	300 to 1300 mm			
	Sheet thickness	0.3 to 1.0 mm			
	Sheet cross section, max	1300 sq mm			
	Ultimate tensile strength of material, max	600 N/sq mm			
	Outer Diameter of coil, max	1500 mm			
	Outer Diameter of coil, min	700 mm			
	Inner Diameter of coil, Nominal	500 mm			
	Inner Diameter of coil, variation range	470 to 530 mm			
	Coil Weight, max	7000 kg			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.1.3	Coil Loading Station				
2.1.3.1	Loading Platform shall be able to handle 1 coil with horizontal axis. It shall be driven by electrical brake motor and shall have hydraulic lifting and lowering device. It shall have arrangement to safeguard toppling of the coil.	Vendor			
2.1.4	Decoiler	Vendor			
2.1.4.1	The decoiler shall be provided with controlled brake mandrel shaft running in anti friction bearings. It shall be laterally movable for loading and positioning of the unit towards the centre line of the press according to the coil width.	Vendor			
2.1.4.2	The expansion mandrel shall be provided with three dovetailed segments, expanded centrally with the help of hydraulic cylinder and sliding dogs. Uniform transmission of tension force shall be ensured. Clamping force shall be adjusted automatically according to the diameter of coil via contact less sensor. The expansion pressure reduction shall be in two steps via adjustable pressure reduction valves.	Vendor			
2.1.4.3	Arrangement shall be provided for holding down the coil in position and for threading of the coil front end in to the straightener. Coil lateral guide for ensuring concentric position of the coil and coil tip over protection shall also be provided.	Vendor			
2.1.5	Straightener				
2.1.5.1	Number of pinch rolls	Vendor			
	Diameter of pinch rolls	Vendor			
	Number of straightener rollers, mm	Vendor			
	Diameter of straightener rollers	Vendor			
	Strip speed	To suit press speed			
	Pass line height, Approximately	1600 mm			
2.1.5.2	The peeler table shall be hydraulically actuated for the remote controlled threading of the strip front end in to straightener. Strip lateral guide shall be provided at the intake side.	Vendor			
2.1.5.3	Pinch rollers and straightening rollers of sufficient diameter and in sufficient number shall be provided so that the sheet can be leveled without any bow. Provision shall be made for cleaning of the rollers in position.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.1.6	Loop equipment				
2.1.6.1	Loop control shall be provided for an uninterrupted straightening process. Catenary rolls shall be provided for support of the strip at the exit side of the straightener and at the entry side of the roll feed.	Vendor			
2.1.6.2	Threading table shall be provided at the exit side of the straightener and the intake side of the roll feed. It shall be hydraulically actuated during threading of the strip front end towards the roll feed. Dampening arc shall be provided to avoid jumping of the strip due to high deceleration of the roll feed.	Vendor			
2.1.7	Roll Feed Unit				
2.1.7.1	Number of feed rolls	Vendor			
	Diameter of feed rolls	Vendor			
	Feed length, adjustable	Vendor			
	Feed accuracy, minimum	±0.5 mm			
	Local adjustment of the lower strip lateral guide	±5 mm			
	Working feed length	Vendor			
	Pass line above floor, approximately	1600 mm			
2.1.7.2	Feed rolls shall be provided for feeding the sheet into the press. A strip lateral guide shall be provided for guiding the strip. The drive shall be by means of an AC drive motor with servo control. A back stop to clamp the strip after shut off of the line shall also be provided.	Vendor			
2.1.8	Hydraulic supply				
2.1.8.1	For the complete Feed Line, including reservoir on floor level, pumps, filters, valves and connections to the units.	Vendor			
2.1.9	Control Panels				
2.1.9.1	Controls for the feed line shall be PLC based and shall be interlinked with the central PLC and operator panel of the Press.	Vendor			
2.1.9.2	Operating panel for control of the feed line shall be provided in the area of the uncoiler / straightener with all necessary operating and control components.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.3	LAMINATION UNLOADING DEVICE				
2.3.1	The unloading device shall be provided for automatic removal of the upper die cut blanks (segment and circular blanks) out of the die space and it shall be capable of holding at least 100 Kg of laminations. It should be synchronised with the main press RAM for collecting the blanks.	Vendor			
2.3.2	Technical Data:				
	Stroke of unloading shovel, approximately	2000 mm			
	Stroke rate (Variable)	10 - 40 per Min			
	Feed-in height over bolster plate, approximately	200 mm			
	Feed-in height adjustment	+75, -75 mm			
	Stacking height, approximately	800 mm			
	Weight of stack, max	4000 kg			
	Segment Dimensions				
	Length (in direction of coil width), max	1050 mm			
	Length (in direction of coil width), min	400 mm			
	Width (in coil run direction), max	1350 mm			
	Width (in coil run direction), min	300 mm			
	Circular Blank Dimensions:				
	Diameter, max	1250 mm			
	Diameter, min	300 mm			
2.3.3	Construction Features				
2.3.3.1	The unloading device shall be suitable for unloading of 1 and 2 laminations per stroke.	Vendor			
2.4	OPERATION AND CONTROL SYSTEM:				
2.4.1	OPERATOR'S PANEL:				
2.4.1.1	Swiveling and sliding type operator's panel having complete CNC and machine control system with CRT of required configuration shall be provided on the operators platform for safe, convenient and efficient operation All switches should be within reach of operator of average height (Indian) for easy operation. All displays/indications should also be conveniently placed accordingly. Layout showing complete details should be submitted. If required the existing display of the manual press shall be replaced.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.4.2	CNC SYSTEM & FEATURES :				
2.4.2.1	Make : Siemens.	Vendor			
2.4.2.3	Model: (Latest version, as available at the time of ordering, should be supplied)	Vendor			
2.4.2.4	Details of Standard features	Vendor			
2.4.2.5	Details of optional features, recommended by Vendor.	Vendor			
2.4.2.6	The system should have full alphanumeric keyboard, TFT color display(10.4" or more), additional draw-out type Query Key Board and mouse in suitable enclosure, RS232C serial interfaces, parallel interface for printer, COM port for tele-diagnostics, network ready with LAN, electronic hand wheels for all axes, hard disk of sufficient capacity, graphic simulation and preinstalled system software & other required softwares etc. (Details should be submitted by Vendor)	Vendor			
2.4.2.7	An open-type control system with a standard industrial PC and colour monitor for the visualization and control of the production process shall be provided.	Vendor			
2.4.2.9	The input shall be by means of soft keys as well as by an alphanumeric keyboard. During the different operating modes such as set-up, automatic continuous run or tool change, the operator shall be guided step-by-step by graphical representation or actual pictures	Vendor			
2.4.3	MANUAL CONTROL :				
2.4.3.1	Complete manual control of machine with required switches / keys should be provided on operator's panel.	Vendor			
2.5	UPS FOR CNC SYSTEM:				
2.5.1	UPS of 30 minutes for CNC system with inbuilt cooling and charge status display shall be supplied. (Battery charging /discharging time should be specified by Vendor)	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.6	MACHINE LIGHTS:				
2.6.1	Machine Lights for sufficient illumination of complete working area on both sides of operator's platform should be provided for clear visibility.	Vendor			
2.6.2	A magnetic base portable spot light with sufficiently long cable should also be provided.	Vendor			
2.6.3	Any lights required in the foundation/ pit area shall also be foreseen and supplied by the Vendor.	Vendor			
2.6.4	All light fittings, consumables, adapters/receptacles should have compatibility with Indian equivalents	Vendor			
2.7	AIR CONDITIONERS:				
2.7.1	Air Conditioners with Dehumidifiers of suitable / sufficient capacity to be provided for all Electrical / Electronic Panels / Cabinets including Operator's Panel considering specified ambient conditions. Detailed specifications of the same are to be submitted.	Vendor			
2.8	HYDRAULIC SYSTEM : Details should be Submitted by the Vendor				
2.8.1	The System should be centralised. Hydraulic Tank shall preferably be located at floor level	Vendor			
2.8.2	Make Rexroth / Vickers Sperry or equivalent from a reputed manufacturer. (Details to be submitted)	Vendor			
2.8.3	Filtration System, Details should be submitted.	Vendor			
2.8.4	Failure indication	Required			
2.8.5	Automatic shut off provision, Details should be submitted.	Vendor			
2.8.6	Refrigerated type cooling and electric heating (Electric heating only if required) system of sufficient capacity to maintain complete Hydraulic System, including lubrication oil, hydrostatic oil and gearbox oil, etc. at a temperature not exceeding 40 deg C irrespective of the ambient conditions. Complete details should be submitted	Required			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.8.7	Hydraulic pump capacity (flow / pressure)	Vendor			
2.8.8	Each pump should have an independent motor. Tandem pumps should not be used				
2.9	ELECTRICAL :				
2.9.1	Power Supply: 415 V: - 10%, +10%, 50 Hz: $\pm 3\%$, 3 phase AC(3 wire supply without neutral). Source will be provided by BHEL at a single point near the machine, as per layout recommended by Vendor. All types of cables, connections, circuit breakers etc. required for connecting BHEL's power supply point to different parts of the machine/control cabinets, shall be in the scope of the Vendor. Requirement of grounding/earthing with required material details is to be informed by Vendor well in advance so that same could be incorporated during construction of foundation.	Vendor			
2.9.2	All electrical / electronic equipment shall be tropicalized	Vendor			
2.9.3	All electrical & electronic control cabinets & panels should be dust and vermin proof	Vendor			
2.9.4	Motors shall conform to IEC or Indian Standards	Vendor			
2.9.5	Oil-proof cables shall be used for power and control supply. Connection lines between control cabinet and press shall be of plug-in type. Main drive cables shall be routed via terminal boards.	Vendor			
2.9.6	All cables moving with traversing axes should be installed in Caterpillar/ Drag chain. Additionally, all the cable trays required for laying of cables should be included in the offer.	Vendor			
2.9.7	Vendor should ensure double earthing for the machine and its peripherals.	Required			
2.9.8	All light fittings, consumables, adapters/receptacles should have compatibility with Indian equivalents.	Required			
2.9.9	All electrical components in the cabinets should be mounted on DIN Rail.	Required			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.10	SAFETY ARRANGEMENTS:				
	Following safety features in addition to other standard safety features should be provided on the machine:				
2.10.1	Machine should have adequate and reliable safety interlocks / devices to avoid damage to the machine, work piece and the operator due to the malfunctioning or mistakes. Machine functions should be continuously monitored and alarm / warning indications through lights/ alarm number with messages (on CNC display and panels) should be available.	Vendor			
2.10.2	A detailed list of all alarms / indications provided on machine should be submitted by the Vendor.	Vendor			
2.10.3	All the pipes, cables etc. on the machine should be well supported and protected. These should not create any hindrance to machine operator's movement for effective use of machine.	Vendor			
2.10.4	All the rotating parts used on machine should be statically & dynamically balanced to avoid undue vibrations.	Vendor			
2.10.5	Emergency Switches at suitable locations as per International Norms should be provided.	Vendor			
2.10.6	Oil & water pipe lines should not run with electrical cable in the same tray / trench.	Vendor			
	2.10.7 Safety Fence				
2.10.7.1	Swiveling and electrically secured safety fence shall be provided around coil feed line. An operation of the machine in continuous run shall be possible only with closed fence.	Vendor			
2.10.7.2	Safety guards shall be installed on the front and rear side of the press for protection of the die space. When opening any of the guards, the press shall be automatically stopped by interlock with the press control.	Vendor			
2.10.7.3	Safety fence around the unloading and stacking device shall be of swiveling type and shall be electrically secured. Operation of the machine in continuous run shall only be possible with closed fence.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.11	ENVIRONMENTAL PERFORMANCE OF THE MACHINE :				
	The Machine should conform to following factors related to environment :				
2.11.1	The noise level during operation of the machine shall be as low as possible. Maximum noise level under normal load condition, 1 M away from the machine with correction factor for back ground noise shall be indicated. This will be measured as per international standards like DIN 45635-16. Vendor to demonstrate compliance to noise level, if so required.	Vendor			
2.11.2	Vendor shall quote optional price for a noise absorbing enclosure for the Press with adequate dampening. The noise level achievable with sound enclosure shall also be specified.	Vendor			
2.11.3	There shall not be any harmful emissions from the machine, the machine shall not produce any harmful effluents and no hazardous chemicals shall be used in the machine.	Vendor			
2.11.4	There should not be any effluent from the machine. In case there are any effluents from the machine, requisite effluent treatment plant or pollution control device should be built into the machine by the Vendor and details shall be given in the offer	Vendor			
2.11.5	No hazardous chemicals shall be required to be used in the machine.	Vendor			
2.11.6	If any safety / environmental protection enclosure is required it should be built in the machine by the Vendor and details shall be given in the offer	Vendor			
2.11.7	Paint of the machine should be oil / coolant resistant and should not peel off and mix up with coolant.	Vendor			
2.12	FIRST FILL OF OILS AND GREASES				
2.12.1	First filling of all required lubricating oils & grease etc. shall be supplied by Vendor. Indian source or Indian equivalent and specifications of oils/ greases are also to be provided by the Vendor.	Vendor			
2.13	NETWORKING:				
2.13.1	Machine control should have necessary hardware and software for interfacing with Local Area Network. The networking should have following capabilities.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
2.13.2	The machine shall appear as a node in the Entire Network. (Network Neighbourhood)	Vendor			
2.13.3	The program transfer shall be by simple copy and paste method provided sharing access is allowed between any PC and the machine across the network.	Vendor			
2.13.4	The program transfer between CNC system and network should also be possible in CNC Mode.	Vendor			
2.15 DIE DESIGN					
2.15.1	Complete tool design information shall be supplied for the manufacture of the dies to suit the press and its control system.	Vendor			
2.15.2	The Vendor shall quote optional price for supply of dies as per enquiry.	Vendor			
3 SCRAP DISPOSAL					
3.1	Scrap generated by air holes, slots and other small cuts shall be discharged to the bottom of the press through the holes provided in the die. Large scrap of the sheet (scrap web) shall be separated at the runout of the die and shall be removed through the side of the press where it shall fall on to a conveyor belt. The conveyor belt for scrap disposal shall be provided by BHEL as per the design provided by the Supplier.	Vendor			
4 SERVO VOLTAGE STABILIZER:					
4.1	Indian make Oil / Air Cooled servo Controlled Voltage Stabilizer suitable for complete machine, its drives, controls, PLC etc with no undesirable Harmonics in the stabiliser output shall be supplied.	Required			
4.2	Model & Rating	Vendor			
4.3	Spares for the Voltage Stabiliser for 2 years working should also be offered.	Vendor			
4.4	Catalogue of the Voltage Stabiliser shall be submitted with the offer.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
5 ULTRA ISOLATION TRANSFORMER					
5.1	Indian make Ultra Isolation Transformer suitable for complete machine , its drives, controls, PLC etc. shall be supplied	Required			
5.2	Model and Rating	Vendor			
5.3	Spares for the Ultra Isolation Transformer for 2 years working should also be offered.	Vendor			
5.4	Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.	Vendor			
6 PNEUMATIC SYSTEM:					
6.1 AIR COMPRESSOR:					
6.1.1	The compressed air supply will be available at one point near the machine at a maximum pressure of 50 N/mm ² . Air required for operation of the machine at a pressure higher than the above shall be obtained by providing booster compressor at a suitable location. The booster compressor of suitable capacity with refrigerator, dryer & filters shall be in the scope of the Vendor.	Vendor			
6.1.2	Make & Model of Air Compressor	Vendor			
6.1.3	Make & Model of Refrigerated Air Dryer	Vendor			
6.1.4	Capacity (Flow, Pressure & KW)	Vendor			
7 DIAGNOSTIC SYSTEM					
7.1 TELE-DIAGNOSTIC SERVICE :					
7.1.1	Tele-diagnostic service should be provided through International telephone lines along with required Hardware / Software package for the supplied CNC system for remote diagnosis and correction of the problems in both CNC System and PLC of the machine. This should be provided free of charge for the guarantee period.	Vendor			
7.2 FAULT DIAGNOSTIC SYSTEM:					
7.2.1	Vendor's own diagnostic system with required hardware and software should be supplied and installed on the CNC system. This should include customised auto-diagnostic system with supporting hardware and software which shows detailed cause and remedy for the fault on the display with full video diagnostic help for faults related to mechanical and electrical maintenance.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
7.3	Help guide should be provided to use both diagnostic systems	Vendor			
8	LEVELING & ANCHORING SYSTEM				
8.1	Complete anchoring system including foundation bolts, anchoring materials, fixators, leveling shoes etc should be supplied	Vendor			
9	TOOLS FOR INSTALLATION, OPERATION & MAINTENANCE :				
9.1	Special tools and equipment required for Installation of the machine shall be brought by the vendor. Necessary tools like Torque Wrench, Spanners, Keys, grease guns etc.for operation and maintenance of the machine should be supplied. List of such tools should be submitted with offer.	Vendor			
10	ACCESSORIES:				
10.1	Any additional items/ accessories, recommended by the vendor for improved performance of the machine shall be described in the offer with complete details.	Vendor			
11	SPARES:				
11.1	Itemised break-up of mechanical, hydraulic, electrical and electronic spares in sufficient quantity as per recommendation of Vendor for 2 years of operation on three shifts continuous running basis should be offered by Vendor.	Vendor			
11.2	In addition to other recommended spares, the list shall include the following: Mechanical & Hydraulic Spares: All types of pumps, Valves, pressure switches / transducers, filters, seals etc.	Vendor			
11.3	Electrical /Electronic / CNC Spares: All types of Relays, Contactors, Proximity Switches, Push Buttons, Indicating Lamps, Semiconductor Fuses, Special Fuses, Circuit Breakers, Main Power Switch, Encoders, Scanning Heads for Linear Scales, MMC module, NCU module, Operator's panel with Display Unit, I/O Cards for PLC, Servo Motors for Feed Drives, Power Module & Control Cards for Main Drive as well as Feed Drives etc.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
11.4	All types of spares for total machine and accessories should be available for atleast ten years after supply of the machine. If machine or control is likely to become obsolete in this period, the Vendor should inform BHEL sufficiently in advance and provide drawings of parts / details of spares & Vendors to enable BHEL to procure these in advance, if required.	Vendor			
11.5	Complete list of spares for machine and accessories, along with specification / type / model, and name & address of the Vendor shall be furnished along with documentation to be supplied with the machine.	Vendor			
12 DOCUMENTATION:					
12.1	Descriptive leaflets, technical literature, drawings, schematic diagrams, electrical wiring diagram, hydraulic circuit diagrams, spare parts manuals, Installation and commissioning drawing etc shall be supplied.	Vendor			
12.2	Layout drawing, major assembly drawings, schematic diagrams, control philosophy etc shall be subject to approval of BHEL. Approval of drawings/ documents by BHEL will not relieve the Vendor of his responsibility of meeting the requirements of the specification.	Vendor			
12.3	The technical documentation shall include documentation of outsourced items also.	Vendor			
12.4	All Specifications and Design Documents shall be neatly printed on A4 size paper. All drawings shall be of standard sizes (A0 ,A1, A2 etc). The title block shall be as approved by BHEL.	Vendor			
12.5	Upon completion of construction, the design drawings shall be revised to reflect accurately the facilities as built. The drawings shall be issued under the appropriate revision and marked "AS BUILT".	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
12.6	The number of copies of design documents and drawings required to be submitted should be as follows: -				
12.6.1	For approval :				
	Design Calculations / reports / documents		3		
	Drawings / documents required for Construction/ Procurement		6		
12.6.2	After completion of work:				
	Drawings ("As Built")		4		
	Drawings in Soft copies in CD		2		
12.7	OPERATING AND MAINTENANCE MANUALS:				
12.7.1	The O & M manual shall include the following:				
	Operating manuals of Machine & CNC system		Vendor		
	Programming Manuals of Machine & CNC system		Vendor		
	Detailed Maintenance manual of machine with all drawings of machine assemblies/sub-assemblies/parts including Electrical / Pneumatic/ Coolant / Hydraulic circuit diagrams. All Assembly/ Sub Assembly Drawings shall be supplied with the part list also.		Vendor		
	Maintenance, Interface & commissioning manuals for CNC system		Vendor		
	Catalogues, O&M Manuals of all bought out items including drawings, wherever applicable.		Vendor		
	Detailed specification of all rubber items and hydraulic / lube fittings		Vendor		
	PLC program print-outs with comments in English.		Vendor		
	PLC program on CD, NC data & PLC data on CD.		Vendor		
	Complete back-up of hard disk on CD and clear written Instructions (3 copies) to take back-up and reloading of a new hard disk.		Vendor		
	Complete Master List of parts used in the machine along with part numbers and ordering numbers.		Vendor		

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
12.7.2	The Operating and maintenance Manuals shall be in English Language and shall be supplied in five copies. One additional set of all the above documentation shall be supplied on CD ROM, wherever possible.	Vendor			
13	TRAINING				
13.1	TRAINING AT BHEL PLANT				
13.1.1	The Vendor shall undertake training of Mechanical, Electronics & Control persons in operation and maintenance of the machine at BHEL's works for a period of 2 weeks. The training program shall be as follows:	Vendor			
	Construction and functioning of the system				
	Presentation of individual components by means of sectional views and schematic drawings				
	Safety instructions				
	Setting up of system				
	Demonstration of machine in operation				
	Resetting of system				
	Operator control of system in all operating modes				
	Programming of all required data				
	Going through all operating instructions				
	Display and control system				
	Fault location by means of programming unit				
	CNC Part Programming/ Technology, Use of all CNC Features.				
	Electrical, Electronic & CNC maintenance for machine & other supplied equipments				
	Mechanical & Hydraulic maintenance of the machine & other supplied equipments				
	Other operational requirements				

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
13.2	TRAINING AT VENDOR'S WORKS				
13.2.1	The Vendor shall undertake training of 3 persons in operation and maintenance of the machine at Vendor's works for a period of 2 weeks. The training program shall include construction and operational features of the machine, it's operational requirements, programming and fault analysis etc.	Vendor			
13.2.2	The training shall include: - CNC Part Programming/ Technology, Use of all CNC Features, Programming for Measuring Systems & supplied accessories etc. - Electrical, Electronic & CNC maintenance for machine & other supplied equipments - Mechanical & Hydraulic maintenance of the machine & other supplied equipments - Operation of the machine & other supplied equipments.	Vendor			
13.2.3	Air-fare, boarding & lodging for the trainees shall be borne by BHEL. All training expenses shall be born by the Vendor. Vendor to quote for training on per man per week basis	Vendor			
13.2.4	Competent, English speaking experts shall be arranged by the Vendor during training for satisfactory & effective training of BHEL personnel.	Vendor			
13.2.5	Vendor shall be ready to organize and quote for training of Electronics Engineer and Programmer at the CNC System Manufacturer's works for advanced features and specialised training if so required by BHEL	Vendor			
	14 FOUNDATION :				
14.1	Vendor shall submit the preliminary layout drawing for BHEL's approval. Soil condition data will be furnished by BHEL along with the approval. After approval of layout drawing, complete Foundation Design including details, like Static/ Dynamic load details etc. and final Layout Drawings shall be submitted by the Vendor. BHEL shall construct complete foundation for the machine as per instructions of the Vendor and at Vendor's responsibility. Vendor may supervise the construction of foundation if he so desires.	Vendor			
14.2	The Vendor shall also indicate detailed specifications of grouting compound and grouting procedure etc. for foundation bolts of the machine.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
15	INSTALLATION & COMMISSIONING				
15.1	Vendor shall be fully responsibility for carrying out the Installation, start up, testing and commissioning of machine, it's control system & all other supplies etc. Service requirement like power, air & water shall be provided by BHEL at only one point to be indicated by Vendor in their foundation/layout drawings. Other requirements like crane and helping personnel shall also be provided by BHEL. Details of these requirements should be informed by Vendor in advance.	Vendor			
15.2	Successful completion of performance tests shall also be part of commissioning tests.	Vendor			
15.3	Tools, Tackles, instruments and other necessary equipment including Laser equipment required to carry out Installation and commissioning activities should be arranged by the Vendor.	Vendor			
15.4	Commissioning spares, required for commissioning of the machine within stipulated time, shall be brought/ arranged by the Vendor.	Vendor			
15.5	if any paint on the machine has rubbed off or peeled during transit or Installation the area should be repainted and merged with the original surrounding paint by the . For this purpose, the Vendor should supply sufficient quantity of touch-up paint of various colours of paint used.	Vendor			
15.6	Schedule of Installation and Commissioning shall be submitted with the offer.	Vendor			
15.7	Charges, duration, terms & conditions for Installation & Commissioning should be furnished in detail by Vendor along with offer.	Required			
15.8	Successful proving of BHEL components by the vendor shall be considered as part of commissioning. All tests, as mentioned at clause 19 (Machine Acceptance) shall form part of the commissioning activity.	Vendor			
15.8	ASSEMBLY AND TESTING AT VENDOR'S WORKS				
15.8.1	The machine shall be completely installed and tested at Vendor's works. BHEL Engineers may witness the test of the machine at Vendor's works.	Vendor			
15.8.2	Tests shall be performed to show that the machine meets the requirement of the specifications.	Vendor			
15.8.3	The Machine shall be dispatched only after acceptance of tests and clearance for dispatch in writing by BHEL	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
16	ACCURACY TESTS:				
16.1	GEOMETRICAL ACCURACIES :				
16.1.1	Geometrical Accuracy shall be in accordance with JIS B 6402, Grade-I or equivalent international standard. Detailed Test Charts for the same, clearly showing the accuracies to be achieved on the machine, shall also be submitted with the offer.	Vendor			
16.1.2	All the above accuracies should be demonstrated to BHEL engineers during pre-acceptance at Vendors works and during Installation & Commissioning at BHEL Works.	Vendor			
16.2	MACHINE POSITIONING ACCURACIES & REPEATABILITY:				
16.2.1	Positioning accuracy in X axis	Vendor			
16.2.2	Positioning accuracy in Y axis	Vendor			
16.2.3	Positioning accuracy in Z axis	Vendor			
16.2.4	Standard for measuring of positioning accuracy should be submitted.	Vendor			
16.2.5	All the above accuracies should be demonstrated to BHEL engineers during pre-acceptance at Vendors works and during Installation & Commissioning at BHEL Works	Vendor			
17	AMBIENT CONDITIONS & THERMAL STABILITY :				
17.1	The machine including CNC system and all supplied items should work trouble free and efficiently under following operating conditions.	Vendor			
17.2	Power Supply:				
	Voltage: 415 V - 10%, +10%	Vendor			
	Frequency: 50 Hz +3%, - 3%	Vendor			
	No. of phases = 3 (3 wire supply without neutral)	Vendor			
17.3	Control Power Supply:				
	AC - 220 V +10%, -10%	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
	DC - 24 V +10%, -10%	Vendor			
17.4	Ambient Conditions: Temperature = 5 to 45 degree Celsius	Vendor			
17.5	Relative Humidity = 95% max.	Vendor			
17.6	Altitude: 600 M above Mean Sea Level	Vendor			
17.7	Weather conditions are tropical, Atmosphere may be dust laden during some part of the year. Machine shall be kept in the normal shop floor condition. Max. temperature variation is up to 25 deg Celsius in 24 hours.	Vendor			
17.8	Thermal Stability of the complete machine keeping in view specified Ambient Conditions and accuracy requirements of BHEL components and trouble free operation of the machine should be ensured by Vendor.	Vendor			
17.9	The machine, including attachments and accessories, should be suitable for 24 hrs. continuous operation throughout the year.	Vendor			
18	PROVEOUT OF BHEL COMPONENTS :				
18.1	Sketch showing the various components to be manufactured on the machine is attached. Proveout to be done on any one of the components to be specified by BHEL. Vendor to submit preliminary process, time study & tool list recommended by them along with the offer. Change in process/tools may be mutually discussed and agreed. Complete process of proveout components shall be done by the vendor at BHEL works to the specified design accuracy, using cutting tools and CNC programs (to be provided by the vendor to prove the machine after complete installation & test.) Material for the proveout components shall be provided by BHEL. Vendor should submit the CNC programs, setting schemes, process sheets, tooling layouts, time studies etc. in advance for the proveout components. Vendor shall be fully responsible for proveout of the components as per drawing, speed of operation for various component and other requirements specified by BHEL to the full satisfaction of BHEL. Clarifications, if any required by Vendor, regarding accuracy requirements of the proveout components, whether specified or not, should be discussed	Vendor			
	and cleared by vendor during initial technical discussions.				

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
18.2	Vendor shall be responsible for any deviation/rejection in proveout component due to malfunctioning of the machine during proveout and also for the delay due to improper recommended tooling etc.	Vendor			
19	MACHINE ACCEPTANCE: (Tests/Activities to be Performed by Vendor)				
19.1	Tests/Activities to be carried out at Vendor's works on the machine before dispatch :				
19.1.1	Geometrical & Positioning accuracies as per test chart.	Vendor			
19.1.2	Demonstration of all features of the machine, control system & accessories	Vendor			
19.2	Tests/Activities to be carried out at BHEL works while commissioning the machine :				
19.2.1	Geometrical & Positioning accuracies as per test chart.	Vendor			
19.2.2	Full load test to demonstrate the maximum power & cutting capacity of the machine.	Vendor			
19.2.3	The machine should be tested for continuous working of 48 hrs. If any break down occurs during this test, the test should be repeated for 48 hrs from that time.				
19.2.4	Demonstration of all features of the machine, control system & accessories to the satisfaction of BHEL for efficient and effective use of the machine	Vendor			
19.2.5	Two weeks supervision of independent operation of machine by BHEL after job proveout	Vendor			
19.2.6	Training of BHEL machine operators in operation of complete machine & accessories etc by the Vendor's experts / engineers during their stay at BHEL works	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
19.3	PERFORMANCE TESTS AT VENDOR'S WORKS AND BHEL PLANT				
19.3.1	The performance of the machine shall be checked under various operating conditions such as:				
	Production of various laminations (minimum 2 types) as specified by BHEL	Vendor			
	Check for dimensional accuracy of the stampings produced.	Vendor			
	Check for press capacity and speed of operation (strokes per minute).	Vendor			
	Check for satisfactory operation of various systems under manual and auto mode.	Vendor			
	Check for operation and interlocking of control system and its visualisation by operator induced faults.	Vendor			
19.4	PERFORMANCE GUARANTEE				
19.4.1	The Vendor shall guarantee the performance of the machine on continuous basis under shop floor working conditions as follows:	Supplier to confirm			
	Press Capacity:	5000 kN			
	(To be measured by a suitably calibrated press force measuring device)				
	Speed of Operation of Press:				
	When producing 1 stamping per stroke	30 strokes/ min			
	When producing 2 stamping per stroke	25 strokes/ min			
20	PROGRESS REPORTS				
20.1	The Vendor shall submit monthly progress reports showing progress of design, material procurement, manufacturing, assembly etc and any advancement/ delays with respect to the scheduled delivery date.	Vendor			

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
21	PACKING:				
21.1	Sea worthy & rigid packing for all items of complete machine, CNC System, all Accessories and other supplied items to avoid any damage/loss in transit shall be provided. When machine is dispatched in containers, all small loose items shall be suitably packed in boxes.	Vendor			
22	PAINTING:				
22.1	All the machine components shall be painted with high quality Polyurethane Paint. The paint shall have good protection against corrosion and high resistance against chemicals and oil.	Vendor			
22.2	Main Machine / Electrical panels: Apple Green	Vendor			
22.3	Safety equipment: Yellow	Vendor			
22.4	Operator console: Light gray	Vendor			
23	GUARANTEE :				
23.1	24 months from the date of acceptance of the machine.	Vendor			

SECTION I

GENERAL CONDITIONS OF CONTRACT

PART - A

GENERAL TERMS AND CONDITIONS

1. DEFINITION OF TERMS

Throughout the Tender Documents including the Enquiry Letter, the following words shall have the meanings assigned to them herein, unless the subject matter or the context requires otherwise.

- 1.1. The '**Purchaser**' or '**BHEL**' shall mean Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the Companies Act 1956 acting through its unit - Fabrication Plant (**FP**), BHEL House, Siri Fort, New Delhi-110 049, which expression shall include its successors and assigns.
- 1.2. The '**Tenderer**' shall mean the Firm/ Company/ Organisation, which quotes against the Tender Enquiry issued by the Purchaser. It may also be referred as '**Bidder**'.
- 1.3. The '**Supplier**' shall mean the Firm/ Company/ Organisation with whom the Order/ Contract is made and shall be deemed to include his successors, representatives, heirs, executors, administrators and permitted assigns, as the case may be. It may also be referred as '**Contractor**' or '**Vendor**'.
- 1.4. The '**Sub-contractor**' shall mean the person/ firm/ company/ organisation to whom any part of the work has been sub-contracted by the Supplier, with the written consent of the Purchaser and shall include his heirs, executors, administrators, representatives and assigns.
- 1.5. The '**Engineer**', for the purpose of this Contract shall mean an engineer, person or company duly appointed as such from time to time or such other officials as may be duly authorised and appointed and notified in writing by purchaser to act as engineer. In cases where no such Engineer has been so appointed, the word 'Engineer' shall mean the Purchaser or his duly authorised representative.
- 1.6. The '**Equipment**' shall mean and include plant and stores and materials to be provided by the Supplier under the Contract.
- 1.7. The '**Specification**' shall mean the specifications contained in the Tender Documents and any subsequent modifications thereof and the drawings, schedules etc. attached thereto, if any.
- 1.8. The '**Offer**' shall mean and include the technical and commercial documents including specifications, schedule of prices and quantities, drawings etc

submitted by the Tenderer in response to the tender enquiry and any subsequent clarifications thereof. It may also be referred as '**Bid**'.

- 1.9. '**Acceptance of offer**' shall mean issue of letter of intent/ award or memorandum or detailed Order/ Contract communicating the acceptance of offer by the Purchaser to the successful Tenderer.
- 1.10. The '**Contract**' shall mean and include the general conditions, bidding conditions, special conditions, specifications, schedules, drawings, form of tender, Offer, covering letters, schedule of prices and quantities, letter of intent/ award of the Purchaser, any special conditions applicable to the particular Order and subsequent amendments. It may also be referred as '**Order**' or '**Purchase order**'.
- 1.11. The '**Contract Price**' shall mean the total price to be paid by the Purchaser to the Vendor for the supply & services to be provided by the Vendor to the Purchaser as per Contract. It may also be referred as '**Order Value**'.
- 1.12. The '**Site**' shall mean the site of the proposed work at Fabrication Plant (FP) of BHEL at Jagdishpur Industrial Area, distt, Sultanpur – 227817 (U.P), India.
- 1.13. The '**Inspector**' shall mean the Purchaser for the time being or such other person as may be duly authorised and appointed in writing by Purchaser to act as Inspector for the purpose of Contract.
- 1.14. '**Approved**' shall mean the approval of the Engineer or of the inspector as the case may be in writing.
- 1.15. '**Test on completion**' shall mean such tests as are prescribed by the specifications and/ or tests mutually agreed upon by the Purchaser and the Supplier, to be performed by the Supplier after Installation of the equipment to establish satisfactory operation as required by the specifications.
- 1.16. '**Commissioning**' shall mean the first operation of the equipment after all initial adjustments, trials, cleaning and re-assembly required at site, if any, have been completed and equipment is made ready for commercial use.
- 1.17. '**Performance Tests**' shall mean the tests to be conducted on the equipment at site for checking the performance parameters of the equipment as defined in Technical Specification.
- 1.18. '**Commercial use**' shall mean that use of the equipment, which the Contract contemplates or of which it is to be commercially capable.
- 1.19. '**Acceptance of Equipment**' shall have the meaning as specified elsewhere in this document.
- 1.20. '**Consignee**' shall mean the official(s)/person(s) to whom the Equipment is required to be delivered in the manner indicated in the Purchase Order.

- 1.21. **'Contract Engineer'** shall mean the official who has signed the Order/ Contract on behalf of the Purchaser.
- 1.22. **'Site Engineer'** shall mean officer of the Purchaser as may be duly appointed and authorised in writing by the purchaser to act as the Site Engineer on his behalf.
- 1.23. **'Months'** shall mean calendar months.
- 1.24. **'Days'** shall mean calendar days.
- 1.25. **'Writing'** shall include any manuscript, typewritten or printed statement under or over signature, seal as the case may be.

The words incorporating singular shall include plural and vice-versa, in the words importing masculine gender shall include feminine and vice-versa and the words importing persons shall include bodies corporate, limited liability companies, partnership and other legal entities.

2. SUBMISSION OF TENDER

2.1. General

- 2.1.1. The tender shall be addressed to the official as specified in the Tender Enquiry and shall be submitted with one original and two copies.
- 2.1.2. Sealed Tenders may be submitted personally, by Courier or by registered post with due allowance for any transit/ postal delay. The tenders received after due date and time of opening are liable to be rejected. Telegraphic offers and offers received by telex/ fax may not be considered unless confirmed in writing by a detailed offer.
- 2.1.3. The Tenderer shall closely peruse all the clauses, specifications and drawings indicated in the Tender Documents before quoting. Should the Tenderer have any doubt about the meaning of any portion of the Tender Specifications or find discrepancies / omissions in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, scope of work etc., he shall at once contact the authority inviting the tender for clarification before submission of the tender. The specifications and terms and conditions shall be deemed to have been accepted unless otherwise specifically commented upon by the Tenderer in his Offer.
- 2.1.4. Tenderer must fill the schedules and furnish all the required information as per the instructions given in various sections of the tender specification. Each and every page of the offer must be signed, stamped and submitted by the Tenderer. The information furnished shall be complete by itself.

- 2.1.5. The tender shall quote the rates in English Language using international numerals. These rates shall be entered in figures as well as in words. For the purpose of the tender, the metric system of units shall be used.
- 2.1.6. All entries in the tender shall either be typed or be written in ink. Erasures and overwriting are not permitted and may render such tenders liable to summary rejection. The Tenderer shall duly attest all cancellations and insertions.
- 2.1.7. The Offer shall be signed by a person who has requisite authority from the Tenderer to do so. A copy of such authority (Power of Attorney) shall be enclosed with the Offer.
- 2.1.8. Standard pre-printed conditions of the Tenderer attached to the offer will not be accepted and only those mentioned in the body of his offer will be considered.
- 2.1.9. Any deviation from the tender conditions being sought by the bidder shall be clearly specified in the schedule of deviations enclosed as Annexure-4 of GCC-A (for technical part) and Annexure- 5 of GCC-A (for commercial part). No other conditions shall be acceptable unless the same is specified in the schedule and is specifically agreed by the Purchaser.

2.2. Two Part Bids

- 2.2.1. Bidders shall submit the offer in three inner envelopes (covers) and one outer envelop (cover) as indicated below.
- 2.2.2. **Envelope I:** This sealed envelope should contain all the copies of technical & commercial bid together with price formats (without prices). This envelope should be clearly marked “**Part I - Technical and commercial bid**”, indicating Tender No., Due Date and Name-Address of the Bidder.
- 2.2.3. **Envelope II:** This sealed envelope should contain only **price formats with prices**. This envelope should be clearly marked “**Part II - Price bid**”, indicating Tender No., Due Date and Name-Address of the Bidder.
- 2.2.4. **Envelope III:** This sealed envelop should contain Demand Draft for cost of Tender if not submitted earlier, and bank Guarantee for bid security. This envelope should be clearly marked “**Envelop III**”, indicating Tender No., Due Date and Name-Address of the Bidder. The Envelop III shall be opened first . If any vendor has not submitted Bid Security & cost of Tender then their Part-I Bid shall not be opened
- 2.2.5. All the envelopes shall be put in one envelop, duly sealed, super scribed as Part I and Part II of Enquiry No., due date of opening, name & address of the officer inviting Tender and the address and Name-Address of the Bidder.

2.3. Part I – Technical and Commercial Bid

2.3.1. Technical

This part shall include / indicate the following:

- 2.3.1.1. Complete scope of supply with all technical details and other terms and conditions.
- 2.3.1.2. Point by point confirmation for the Technical Specification in the specified format. If there are any deviations, the same should be clearly specified. Offers received without confirmation to our specification will be rejected.
- 2.3.1.3. List of customers to whom same or similar equipment have been supplied along with performance certificates.
- 2.3.1.4. Relevant catalogues.
- 2.3.1.5. List of recommended spare parts (with part numbers) for two years normal operation and maintenance.
- 2.3.1.6. Information on shipping weight and cubage (length, width & height).

2.3.2. Commercial

This part shall include / indicate the following:

- 2.3.2.1. Port of shipment / Station of dispatch
- 2.3.2.2. Terms of payment
- 2.3.2.3. Taxes & duties applicable.
- 2.3.2.4. Delivery Schedule
- 2.3.2.5. Offer validity
- 2.3.2.6. Country of origin
- 2.3.2.7. Percentage of agency commission payable to Indian Agent, if any, along with a copy of the Agency Agreement.
- 2.3.2.8. A copy of "Un-Priced Part II" i.e., a copy of the Price Bid without price particulars. Instead of the price, the Tenderer shall write 'quoted' against the item for which price have been quoted in the Price Bid.

2.4. Part II (PRICE- BID)

This part should contain the price particulars as per the price schedule format specified by BHEL.

3. OPENING OF TENDERS

- 3.1. Authorised officer of BHEL at his office shall open tenders of qualified vendors at the time and date as specified in the tender notice in the presence of such of those Tenderers or their authorised representative who may be present. However, The Purchaser reserves the right to open the tenders in-camera.
- 3.2. The envelop III will be opened first. Tenders received without the demand draft for cost of Tender, as required, and Bid Security in the form of bank guarantee will be rejected and Part I of Bid will not be opened.
- 3.3. The Part I - Technical & commercial bid alone would be opened on the Tender opening date.
- 3.4. The Part II - Price bid of only those Bidders who have been found to be techno-commercially suitable would be opened at a later date. These Bidders would be informed about the tender opening date.
- 3.5. Clarifications, if any, required by BHEL for technical and commercial evaluation may be sought from Bidders before opening of Part II - price bid.
- 3.6. In case it becomes necessary for the Tenderer to make any changes in his original price bid (Part-II) on account of technical/ commercial confirmations/ clarifications, against the changes advised by the purchaser to bring the offer in line with the requirement of the specifications, the impact of such changes on price shall be submitted in the form of a revised price bid, if asked for by the Purchaser.
- 3.7. If a revised price bid has been submitted, normally only the final revised price bid shall be opened. However, BHEL reserves the right to open the earlier price bids, if required.
- 3.8. Any revision or changes in quoted prices and/or conditions of offer made after tender opening, which will give benefit to the Tenderer over others, may result in rejection of the tender.

4. QUALIFICATION OF TENDERERS (For Open Tender):

- 4.1. Details of Qualification Requirements (Technical) are given in Technical Specifications Section IV & in Section V. For commercial requirement, separate qualifying data sheet and Eligibility Criteria Enclosed (for Indian/ Foreign Bidders). These sheets (Data Sheet & Eligibility Criteria) are to be filled and to be sent to BHEL for scrutiny. Qualified Bidders shall be intimated. Only qualified Bidders shall be eligible to participate in the bid. **Refer Section V of Tender.**
- 4.2. Only Tenderer who has previous experience in the work of this nature and description detailed in this tender specification are expected to quote for this work. Offer from Tenderer who does not have proven and established experience in the field is not likely to be considered.

- 4.3. Tenders will be accepted from the equipment manufacturers only and not from their agents.

5. VALIDITY OF OFFER

- 5.1. The offer shall be open for acceptance from the date of opening of tender part - I for a period as specified in Tender Enquiry. In case the Purchaser calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer, which shall be binding on the Tenderer.

6. REJECTION OF TENDER AND OTHER CONDITIONS

- 6.1. The acceptance of Tender will rest with BHEL which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights to reject any or all the Tenders without assigning any reason whatsoever.
- 6.2. Conditional and unsigned tenders, tenders containing absurd or unworkable rates and amounts, tenders which are incomplete or otherwise considered defective and tenders not in accordance with the tender conditions, specifications, etc., are liable to be rejected.
- 6.3. If the Tenderer deliberately gives wrong information in his tender, Purchaser reserves the right to reject such tender at any stage or to cancel the Contract, if awarded and forfeit the Bid Security / Contract Performance BG /any other moneys due.
- 6.4. Canvassing in any form in connection with the tender is strictly prohibited and the tenders submitted by the Tenderer who resorts to canvassing are liable to be rejected.

7. EVALUATION OF OFFERS

- 7.1. Evaluation of offers shall be on the basis of delivered cost at project Site i.e. total cost to the Purchaser, taking into consideration loadings, if any, and all available financial advantages.
Refer Typical Format For Illustration (Annex-7 of GCC-A) to arrive at total cost to BHEL.
- 7.2. Deviations (Commercial as well as Technical) from the Tender Specifications are generally not acceptable. However, if any deviation is considered by the Purchaser, the same shall be loaded for comparison, while evaluating the offer.
- 7.3. Loading criteria in respect of the deviations shall generally be on the principle of time and value of money in respect of commercial deviations, and similar quantification – as may be decided by the Purchaser – in respect of technical deviations.
- 7.4. Loading criteria in respect of the deviation(s) shall be communicated to the concerned Bidder(s) before Price Bid opening. If a Bidder unconditionally withdraws any deviation before Price Bid opening, the same shall not be loaded.

- 7.5. Rates of Exchange taken for conversion of foreign currency to Indian Rupees for the comparison of bids shall be the inter bank TT selling rates of State Bank of India as at the close of business on the date of opening of Tender Part -I.
- 7.6. The Purchaser reserves its right to negotiate with the Bidder and/ or go for reverse auction.
- 7.7. The Purchaser reserves its right to allow to the Public Sector Enterprises ordering and price preference facilities as admissible under the prevalent policy of the Govt. of India.

8. LETTER OF INTENT

- 8.1. The Purchaser shall issue a Letter of Intent for award of work to the successful Tenderer as soon as his Bid has been accepted giving brief details of the equipment and other terms & conditions.
- 8.2. Detailed Purchase Order will be issued by the Purchaser normally within 2 to 4 weeks from the date of award of work (Letter of Intent).
- 8.3. The Letter of Intent/ Purchase Order shall be issued in the name of Bidder only.

9. EFFECTIVE DATE OF CONTRACT

- 9.1. The responsibility of successful Tenderer under this Contract commences from the date of issue of the Letter of Intent by the Purchaser.
- 9.2. The Effective Date of Contract shall be the date of issue of the Letter of Intent.

10. PRICES

10.1. Fixed price

- 10.1.1. Prices quoted by the bidder shall be fixed and not subject to any variation whatsoever during the period of Bid validity and execution of the Purchase Order. A Bid submitted with an adjustable price will be treated as non -responsive and rejected.
- 10.1.2. Prices shall be written in words and figures. The discrepancy in quoted price, if any, shall be corrected as follows:
- If there is a discrepancy between words and figures, the amount given in words shall prevail.
 - If there is a discrepancy between the unit price and total price which is obtained by multiplying the unit price and quantity, the unit price shall prevail.
 - If there is a discrepancy between the sub-total price and total price which is obtained by adding the various sub-total prices, the sub-total price shall prevail.

- The Order will be issued on the corrected price or the quoted price for the complete scope of work (whichever is lower).

10.2. Bid currency

- 10.2.1. Indian bidders should quote the prices only in Indian Rupees.
- 10.2.2. Foreign bidders may quote the prices in their home currency, US Dollars or Euros (any one) and Indian Rupees.

10.3. Taxes and Duties

- 10.3.1. All Taxes and Duties payable as extra to the quoted price should be specifically stated in offer. Purchaser will not be liable for payment of Taxes and Duties not specifically mentioned in the offer.

11. DELIVERY

- 11.1. Bidders are required to quote their best delivery period.
- 11.2. Foreign Bidders should submit their offer on FOB Nearest Sea Port / FCA Nearest Air Port basis as per Inco-terms 2000 for foreign supplies and on FOR Site (BHEL-Jagdishpur) basis for indigenous supplies.
- 11.3. Indian Bidders should submit their offer on FOR Site (BHEL-Jagdishpur) basis.
- 11.4. Delivery shall be counted from the date of Letter of Intent.
- 11.5. Date of dispatch for Indian supplies (RR/ GR date) and date of shipment (Bill of Lading, Air Way Bill date) for foreign supplies shall be treated as date of delivery.
- 11.6. The title of goods shall pass on to the Purchaser on FOB Nearest Sea Port / FCA Nearest Air Port for foreign goods and on FOR dispatching station dispatch for domestic goods.

12. VALIDITY OF OFFER:

Offers are to be kept valid for Six months from the date of opening of Part-I Bid (Techno-commercial)

12. COMPLETENESS OF THE EQUIPMENT

- 12.1. The Equipment shall be complete in every respect with all mountings and testing and fixtures and standard accessories, which are normally supplied. The Supplier shall not be eligible for extra payment in respect of such mountings, fittings, fixtures and accessories which are needed for efficient and safe operation of the Equipment.

- 12.2. All similar components or parts of similar equipment supplied by the Seller shall be interchangeable with one another.

13. TOOLS, CONSUMABLES AND SPARE PARTS

- 13.1. The Tenderer shall provide installation, commissioning and maintenance tools and tackles at no additional cost, unless otherwise stated in the Tender Documents.
- 13.2. The Tenderer shall provide commissioning spares and consumables at no extra cost to the Purchaser.
- 13.3. Mandatory/ recommended spares for two years operation shall be quoted item wise.

14. TERMS OF PAYMENT

14.1. Indian Bidders

- 14.1.1. The terms of payment shall be as per Special Conditions of Contract.

14.2. Foreign Bidders

- 14.2.1. The terms of payment shall be as per Special Conditions of Contract.

14.3. Tax Deduction at Source

- 14.3.1. Installation and commissioning charges will be released after deduction of Income Tax as per the Govt. of India rules in force. The Tax Deduction at Source (TDS) certificate will be issued by BHEL. Service Tax on E&C charges will be payable extra, if applicable. The liability of depositing the same to the Govt. will be of the Supplier.

14.4. MODVAT credit (for Indian Bidders only)

- 14.4.1. The price bid must indicate Tariff item number and rate of Excise Duty applicable. The original Excise Duty Gate Pass will be required to be furnished in case charged to us. If the Vendor is availing MODVAT credit for his input materials, the effect of proforma credit should be passed on to the Purchaser.

14.5. Bank Charges

- 14.5.1. All bank charges for negotiation of documents through bank shall be to the account of the Seller.
- 14.5.2. No interest, whatsoever, shall be payable by Purchaser on the security deposit, any bank guarantee submitted or any amount due to the Seller by the Purchaser.

15. INVOICES AND PAYMENT DOCUMENTATION

- 15.1. Invoices shall be issued by the Supplier in the name of the Purchaser.
- 15.2. The invoices shall contain the following information:
- i) Project name
 - ii) Item no, quantity and description of equipment as per Purchase Order.
 - iii) Gross amount payable and net amount payable.
- 15.3. The following documents shall be presented by the Supplier to the Purchaser for drawing payment:
- i) Signed Commercial invoice in quadruplicate.
 - ii) Clean on board Bill of Lading/ Airway Bill (for foreign Suppliers)/ LR (or equivalent document (for Indian Suppliers)
 - iii) Packing list indicating dimensions of each case / bundle / piece shipped, with weight and number of items it contains.
 - iv) Manufacturer's Inspection / Test certificate
 - v) Certificate of Country of Origin, issued by an independent third party like Chamber of Commerce (for foreign Suppliers).
 - vi) Manufacturer's Guarantee / Warrantee certificate as per Purchase Order.
 - vii) Declaration by the Supplier certifying that the contents in each case are not less than those entered in the invoices / packing list and that the invoicing for the supplies effected is strictly in accordance with agreed rates as stipulated in the Purchase Order.
 - viii) Certificate from shipping company or its agent that the vessel is seaworthy and approved by Lloyds / Classification Societies / General Insurance Corporation of India (for foreign Suppliers).
 - ix) Material Despatch Clearance Certificate (MDCC) from Purchaser.
- 15.4. For foreign supplies, all documents shall show Purchase Order No and date, Import License No and date (if any) and Letter of Credit No and date. Loading on deck and trans-shipment will not be allowed.
- 15.5. The complete equipment shall be despatched in one lot. If, for any reason, a Vendor wants to despatch the equipment in more than one lot, it shall be only after written approval of the Purchaser. For this purpose, the Vendor shall submit to Purchaser a detailed list of items proposed to be despatched in various lots with price break-up for approval of the Purchaser.
- 15.6. Detailed procedure for preparation and submission of payment documentation will be provided by the Purchaser at a later stage.

16. SECURITIES

- 16.1.** The Vendor is required to submit the following bank guarantees as security in the form and manner specified below. The amount of Bank Guarantee shall be as per Special Conditions of Contract. The Bank Guarantees are to be established through any of the Schedule Bank .

16.2. Bid Security :

- 16.2.1. Every tender must be accompanied by Bid Security of specified amount in the form of a bank guarantee valid up to the Tender validity date with a claim period of further two months. The Bid Security shall be submitted as per proforma given in Annexure 1 of GCC – A.
- 16.2.2. Tenders received without Bid Security in full in the manner prescribed above will not be considered.
- 16.2.3. The Bid Security of the successful Tenderer will be returned after submission of Contract Performance Bank Guarantee.
- 16.2.4. In the case of unsuccessful Tenderers, the Bid Security will be refunded to them after finalization of the Order.
- 16.2.5. BHEL reserves the right of forfeiture of Bid Security in case the Tenderer :
 - a) After opening of Tender, revokes/withdraws his tender within the validity period or revises/alters his earlier quoted rates/conditions.
 - b) Fails to communicate unqualified acceptance of Letter of Intent within 7 days from the date of issue of Letter of Intent.
 - c) Fails to submit Contract Performance BG within 1 month of issue of Letter of Intent.

16.3. Contract Performance Bank Guarantee

- 16.3.1. The successful Tenderer shall furnish a Contract Performance Guarantee (CPBG) of the specified amount confirming that the Contract will be executed as per the terms and conditions and the CPBG should be valid till the Acceptance of Equipment at Purchaser's works (after completion of installation and commissioning and successful performance test) with a further claim period of two months. The Contract Performance Bank Guarantee shall be submitted as per proforma given in Annexure 2 of GCC – A.
- 16.3.2. The Contract performance Guarantee will be released to the Vender after receipt of Performance Bank Guarantee.

16.4. Performance Bank Guarantee

- 16.4.1. The Vendor shall furnish a Performance Guarantee (PBG) of the specified amount confirming that necessary service and maintenance support and guarantee replacements will be provided during the guarantee period. The PBG shall be valid up to end of the guarantee period with additional claim period of 2 months. The PBG shall be submitted as per proforma given in Annexure 3 of GCC – A.

16.5. For All Bank Guarantees

- 16.5.1. The BGs shall be established through a bank in India acceptable to the Purchaser.
- 16.5.2. All charges for establishing and amending the BGs, if necessary, shall be to Vendor's account.

17. PENALTY FOR DELAY

- 17.1. The delivery of Equipment specified in the Purchase Order should be made within the time prescribed for completion of scope of work. Failure to complete the work in time as per the delivery specified in the Purchase Order would make the Vendor liable to an un-conditional penalty as per details given in the Special Conditions of Contract.

18. RISK PURCHASE

- 18.1. If the Vendor is found to be not in a position to execute the Order in time, the Purchaser, at his option, will be entitled to terminate the Contract and to purchase and/ or complete the work from elsewhere at the risk and cost of the Vendor either the whole of the goods or any part which the supplier has failed to deliver/ despatch or complete the work within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefor.

19. PURCHASER'S RIGHT OF REJECTION

- 19.1. Notwithstanding any approval which Purchaser or the Engineer may have given in respect of the Equipment or any materials or other particulars or the work or workmanship involved in the performance of the Contract (whether with or without any test carried out by Seller or the Inspection Agency or under the direction of the Contract Engineer), and notwithstanding delivery of the Equipment where so provided to the Purchaser, the Purchaser shall be entitled to reject the Equipment or any part, portion or consignment thereof, if such Equipment or part, portion of consignments thereof is not in all respects in conformity with the terms and conditions of the Contract whether on account of any loss, storage, deterioration or damage before dispatch or delivery or during transit or otherwise, whatsoever.
- 19.2. Rejected goods or materials shall be removed by the Seller from the Site. The expenses to be incurred in respect thereof shall entirely be borne by the Seller.

20. INDIAN AGENT & AGENCY COMMISSION (FOR FOREIGN BIDDERS)

- 20.1. Offers from Indian agents on behalf of their principals (Foreign Manufacturers) will not be accepted.
- 20.2. An Indian Agent can represent only one Foreign Manufacturer against a particular Tender.

- 20.3. Agency commission, if any, payable to the Indian Agents, shall be shown separately in the offer (Section III-Price Schedule). This will be paid in Indian Rupees, on satisfactory completion of the Contract. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished along with offer. For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of Part-I bid opening date. In the Price schedule Format Agency commission to be clearly mentioned.

21. SHORT SHIPMENT / GUARANTEE REPLACEMENT

- 21.1. Any shortages or damages during transit, transportation or handling at site, including at the time of installation and commissioning, shall be made good by the Seller/ Contractor at his risk and costs, to meet the project schedule. In case of faults/ discrepancies in any material, component, sub-assembly, assembly, etc., the same shall be supplied/ replenished free of cost to enable the equipment to be put in service. Shortages in sound cases shall also be replenished free of cost.
- 21.2. In case of foreign supplies, customs duty (including any other duties and surcharges) levied in India on such supplies shall be borne by the Vendor. All such supplies shall be on FOR Site (Jagdishpur) basis and all taxes and duties shall be borne by the Vendor.
- 21.3. Any replacements during the guarantee period shall be on FOR Site (Jagdishpur) basis and all taxes and duties (including customs duty) shall be borne by the Vendor.

22. INSPECTION AND TESTING

- 22.1. The Engineer/ Inspector shall have at all reasonable time, access to the Supplier's premises or Works and shall have the power at all reasonable times to inspect drawings or any portion of the plant or examine the materials and workmanship of the machine during its manufacture and if parts of the machine is being manufactured in other premises, the Supplier shall obtain permission for the Engineer/Inspector permission to inspect such equipment.
- 22.2. The Supplier shall give the Engineer/Inspector 21 day's written notice of Equipment being ready for testing. Such tests shall be to the Supplier's account except for the expense of the Inspector and the Engineer/Inspector. Unless the inspection of the tests is virtually waived, the Inspector /Engineer shall attend such tests within 21 days of the date on which the plant is notified as being ready, failing which visit, the Supplier may proceed with the tests which shall be deemed to have been made in the Inspector's presence and he shall forthwith forward to the Inspector duly certified copies of the tests in triplicate. The equipment on which witnessing of tests is required, shall be mutually identified and agreed.
- 22.3. When the factory tests have been completed at the works of the Vendor or Sub-Vendor, the Engineer/Inspector shall issue a certificate to this effect

within fifteen days after completion of tests. If the tests are not witnessed by the Engineer/Inspector, the certificate shall be issued after receipt of the Supplier's test certificate by the Engineer/Inspector. The completion of these tests or issue of the certificate shall not bind the Purchaser to accept the equipment should it, on further tests after installation, be found not to comply with the Contract.

23. COUNTRY OF ORIGIN :

Vendor to mention Country of Origin of equipments from where it will be supplied

24. PACKING

- 24.1. The Supplier shall include and provide for secure protection and packing for the plant so as to avoid damages in transit to Site under proper conditions and he shall be responsible for all losses or damages caused or occasioned by any defect in packing.
- 24.2. The Equipment shall be packed in suitable strong cases wherever essential. Large article such as bed plates which are not packed in cases, shall have all screwed holes plugged suitably and machined surfaced properly protected.
- 24.3. Weight and dimension limitation for transport shall be followed.

25. QUALITY OF MATERIALS

- 25.1. The plant shall be manufactured and constructed in the best workman like manner and with materials of the best or of approved qualities for their respective uses.
- 25.2. A Quality Assurance Plan shall be submitted by the Vendor to the Purchaser giving details of manufacturing and testing standards and procedures for major equipment for his approval.
- 25.3. Vendor shall purchase the bought out items only from vendors of repute and indicate the same to the Purchaser at the time of approval of drawings. Purchaser reserves the right to approve/ reject such vendors and visit / inspect the works of vendors and that of their sub-contractors before or after placement of order.

26. DESIGN IMPROVEMENT

- 26.1. The inspector or the Supplier may propose changes in the specification of the plant or quality thereof and if the parties agree upon any such changes the specifications shall be modified accordingly.

- 26.2. If any such agreed upon change is such that it affects the price or delivery, the parties shall agree in writing as to the extent of any change in the price and/or delivery or both, before the Supplier proceeds with the change.

27. DRAWING / DATA APPROVAL

- 27.1. Any drawing / data approval required from BHEL after placement of order shall be the responsibility of the Vendor and any delay on account of the same shall be the responsibility of the Vendor and will have no bearing on delay in delivery or applicable penalty.

28. ACCEPTANCE OF EQUIPMENT

- 28.1. The Equipment will be accepted by the Purchaser after installation, testing and commissioning of the Equipment at Site and after completion of following activities.
- 28.1.1. All components and sub-assemblies of the Equipment have been properly assembled and tested.
 - 28.1.2. All facilities necessary for the safe and reliable operation of the Equipment have been properly installed and adjusted.
 - 28.1.3. The equipment can be safely placed in operation for its intended use.
 - 28.1.4. Spares, service tools and manuals have been delivered to the Purchaser.
 - 28.1.5. On site training of the Purchaser's personnel have been completed as per Contract.
 - 28.1.6. As built Drawing to be submitted along with 5 sets of Operation and Maintenance Manuals.
- 28.2. A letter of Acceptance of Equipment shall be issued by the Site Engineer after acceptance of the Equipment.
- 28.3. The guarantee period of the Equipment will start from the date of acceptance of Equipment by the Purchaser.

29. USE OF DRAWING/ DESIGN INFORMATION

- 29.1. The Vendor shall undertake that the drawings / design / Information enclosed with the Tender / Order or sent to him subsequently is the property of BHEL and it will not be parted to any other agency and will also not be used for any purpose detrimental to the interests of BHEL.

30. PERFORMANCE GUARANTEE

- 30.1. The Supplier guarantees that the Equipment will be new and in accordance with the specifications; that the Equipment will be free from defects in

material and workmanship; and that the Equipment will meet the specified performance parameters

- 30.2. For the guarantee period the Supplier shall be liable to repair or replace any defective parts that may develop in the Equipment of his own manufacture or those of his sub-Suppliers under conditions arising from faulty design, materials or workmanship; provided that notice of any such defects or failure to conform to the specifications is promptly given within 30 days by the Purchaser to the Supplier.
- 30.3. The acceptance of the plant by the Engineer shall, in no way, relieve the Supplier of his obligation under this clause.
- 30.4. In the case of defective parts not repairable at site but essential in the meantime for commercial operation of the plant, the Supplier and Purchaser shall mutually agree to a programme of replacement or renewal which will minimise, to the maximum extent, interruption in the operation of the Equipment.
- 30.5. If it becomes necessary to replace or renew any defective parts under this clause, the provisions of this clause shall apply to replaced part until 6 months from the date of replacement or until the expiration of original guarantee, whichever is later.
- 30.6. Guarantee period for the Equipment shall be as specified in the Special Conditions of Contract.

31. PROGRESS REPORTS

- 31.1. The Supplier shall furnish to the Purchaser Progress Reports of the equipment manufactured at the end of every months as per mutually agreed format.

32. REVERSE AUCTION (RA)

- 32.1. BHEL may go for Reverse Auction (on line bidding on Internet) instead of opening the submitted sealed price bid. The decision to go for Reverse Auction will be taken after techno-commercial evaluation. Information and general terms and conditions governing RA are given below.
- 32.2. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- 32.3. BHEL will engage the services of a Service Provider who will provide all necessary training and assistance/ demonstration before commencement of on line bidding on internet.
- 32.4. BHEL will inform the Vendors in writing the details of Service Provider to enable them to contact for training/ demonstration.
- 32.5. Business rules like event date, time, start price, bid decrement, extensions etc. also will be communicated through Service Provider for compliance.

- 32.6. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse Auction. Without this, the vendor will not be eligible to participate in the event.
- 32.7. BHEL will provide the calculation sheet which will help the Vendors to arrive at "Total Cost to BHEL" by including items like Packing & Forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL Commercial terms & conditions, if any) for each of the Vendors to enable them to fill-in the price and keep it ready for keying in during the Auction.
- 32.8. Reverse auction will be conducted on a scheduled date & time.
- 32.9. At the end of Reverse Auction event, the lowest bid value will be known on the network.
- 32.10. The lowest bidder has to fax the duly signed filled-in prescribed format as provided to BHEL through Service Provider within 24 hours of Auction without fail.
- 32.11. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
- 32.12. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids already submitted and available with BHEL shall be opened as per BHEL's standard practice.
- 32.13. Tenders when finalised shall be in the name of the Bidder only and change of name during tender evaluation (without certificate from registrar of company/other appropriate Authority) and after submission of the Tender is liable to make the offer ineligible for participation

33. HEALTH SAFETY & ENVIRONMENT (HSE)

- 33.1. Consumption benchmarks related to output shall be provided wherever applicable for key input resources (energy/fuel/chemicals)
- 33.2. Competency requirements for operation, maintenance and calibration, if any, shall be communicated
- 33.3. If any hazardous chemicals as per MSIHC (Manufacturing, storage and import of Hazardous Chemicals) Rules 2000 are used, the MSDS shall be provided, along with On site & Off site emergency plan (as applicable)
- 33.4. The noise level at operator level shall be within acceptable range and shall be specified.
- 33.5. OH&S (Occupational Health and Safety) control measures for safe working of machine as applicable shall be specified.

- 33.6. The machine / equipment shall be fitted with guard for rolling and moving parts and shall comply with applicable OH&S legislations and Factories Act 1948
- 33.7. The supplier shall submit the layout drawing of operating controls, displays etc. and operating instructions to enable ergonomics evaluation and approval
- 33.8. The recommended PPE (Personal Protective Equipment) for the equipment shall be furnished
- 33.9. Alarm system (both visual and audible) and Automatic switch off of the equipment shall be provided for any intrusion, overloading, short circuiting or any malfunctioning of the equipment
- 33.10. Details of all hazardous / harmful substances discharged as by-products / wastes during operations of the machine / equipment, such as fumes, gases, dust particles, aerosols UV./IR (Ultra violet / infra red) radiations, etc. shall be furnished, along with their concentrations and their TL V, (Threshold Limit Value).
- 33.11. Appropriate pollution control measures shall be proposed to keep the emissions from the machinery / processes within the prescribed limit as stated in Environment Protection Rules 1986.
- 33.12. All furnaces, process units, DG sets, paint booths, shot blasting chambers, etc. shall be provided with stack(s) of sufficient height as per guidelines laid down in the Environment Protection Rules 1986.
- 33.13. Wherever industry specific standards are not available for control of pollutants, general emission standards shall be used.
- 33.14. Chemicals banned due to their negative impact on the environment shall not be used in the process.
- 33.15. Fuels with sulphur content less than 0.05% shall be proposed.
- 33.16. Details regarding nature of waste generated and appropriate disposal practices available shall be provided, along with the operation procedure of the plant / process.
- 33.17. Hazardous chemicals and flammable substances shall be transported only through authorized transporters and all safety practices as laid down in applicable legislative requirements such as Central Motor Vehicle Rules, Manufacture, storage and Import of Hazardous Chemical 1989, etc. shall be followed
- 33.18. Primary materials used in the equipment shall be specified and they shall be eco – friendly.

34. COOPERATION WITH OTHER VENDORS

- 34.1. The Supplier shall agree to co-operate with the Purchaser's other suppliers and consulting engineers for associated equipment and freely exchange

with them such technical information as is necessary to obtain the most efficient and economical design and to avoid unnecessary duplication of equipment. No remuneration shall be claimed from the Purchaser for such technical co-operation. The inspector shall be provided with two copies of all correspondence addressed by the Supplier to other Suppliers in respect of such exchange of technical information

35. FORCE MAJEURE

- 35.1. Notwithstanding anything contained in this Contract, neither the Supplier and nor the Purchaser shall be held responsible for total or partial non-execution of any of the contractual obligations, should the obligation be made impossible due to concurrence of a Force Majeure which will include war, military operations of any nature, blockages, revolutions, insurrections, riots, civil commotion's, insurgency, sabotage, act of public enemy, acts of god, epidemics and act of Govt. over which the Supplier or Purchaser has no control.

36. ARBITRATION

- 36.1. The Purchaser and Supplier shall settle the disputes and differences arising out of this agreement in good faith. In the event that a dispute can not be resolved within reasonable time, the parties agree that the agreement shall be subject to arbitration under the Indian Arbitration & Conciliation Act 1996. Notwithstanding anything to the contrary in such rules there shall be three arbitrators, one appointed by the Purchaser, one appointed by the Supplier and the third appointed by the other two arbitrators. No aspect of any arbitration proceedings shall be made public by either party. The arbitration tribunal shall give reasonable award in writing. The award of the arbitration tribunal shall be final and binding on the parties. Any disputes under this order shall be under jurisdiction of New Delhi Courts only.

37. CONTRACT LAW AND JURISDICTION

- 37.1. This Contract shall be governed by the laws of India.
- 37.2. No court shall entertain or try any suit or legal proceedings to enforce any claim arising out of the Contract except in a court of law having jurisdiction at New Delhi.

ANNEXURE-1 of GCC -A

PROFORMA FOR BANK GUARANTEE FOR BID SECURITY

(To be issued on appropriate valid non-judicial stamp paper)

This Deed of Guarantee made this Day of 200 by Bank Ltd. (hereinafter called the 'Bank'), in favour of Bharat Heavy Electricals Limited, having its Registered Office at BHEL House, Siri Fort, New Delhi – 110 049 (hereinafter called the 'Purchaser') throughunit.

Whereas M/s (hereinafter called the Tenderer) have submitted a tender in response to tender specification No/ Enquiry No..... (hereinafter called the said 'Tender Documents') of the Company.

And whereas the said tender documents provide that the Tenderer shall submit a bank guarantee for a sum of Rs..... (Rupees..... only) towards Bid Security to be made in the form and manner therein specified.

And whereas the Tenderer have approached (Bank) and at their request and in consideration of the arrangement arrived at between the said Tenderer and the said Bank, the said Bank has agreed to give such guarantee as hereinafter mentioned to the aforesaid Purchaser.

Now, therefore, these presents witness that we (Bank) by the hand of Shri..... its lawfully and duly constituted attorney do hereby undertake to pay the aforesaid Purchaser a sum of Rs..... (Rupees) by virtue of this Guarantee against any loss or damage caused to or suffered by the said Purchaser by reason of any breach by the aforesaid Tenderer of any of the terms, conditions, stipulations undertakings or any one of them contained in the said Tender Documents, and for the payment of any money or moneys payable by the said Tenderer to the said Purchaser under the terms and conditions of the tender documents (the decision regarding the breach, loss, damage or payment due, being solely in the discretion of the said Company. We further undertake to pay the aforesaid amount in a lump sump on demand irrespective of the fact whether the said Tenderer admits or denies such claim or questions its correctness in any Court, Tribunal of Arbitration proceedings or before any authority.

The aforesaid guarantee will remain in force and we shall be liable under the same, irrespective of any concession for the time being granted by the said Purchaser to the Tenderer in or for fulfilling conditions of the tender documents and the guarantee will remain in full force irrespective of any change of terms, conditions or stipulations or any variation in the terms of the said Tender Documents irrespective of whether notice of such change and/or variation is given to us or not and claim to receive such notice of any change and or/variation is given to us or not and claim to receive such notice of any change and or/variation of the terms and/or conditions of the said tender document is hereby specifically waived by us. Further, we shall not be released from this guarantee by any forbearance of the exercise or non-exercise of any of the powers or rights under the said tender documents by the said Purchaser against the Tenderer irrespective of

whether notice of such forbearance, enforcement or non-enforcement of any powers or rights, modifications or changes made in the said tender documents or concessions shown to the Tenderer by the Purchaser is given to us or not.

The guarantee herein contained shall not be determined or affected by the liquidation or winding up or insolvency or change in the constitution of the Tenderer but shall in all respects and for all purposes be binding and operative until all payments of all moneys due or that may become due to the said company in respect of any liability or obligation of the Tenderer under the said tender document.

We the said Bank further agree that the guarantee hereinafter contained shall remain in full force and effect during the period that would be taken for the finalisation of the tender and execution of agreement there of and that it shall continue to be enforceable till the required Contract Performance Guarantee is issued by the successful Tenderer, as stipulated in the said Tender Documents or till the Purchaser certifies that the terms and conditions of the said tender documents have been fully and properly carried out by the said Tenderer and accordingly discharges the guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before the(date – tender validity date plus two months) we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date.

Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts having jurisdiction at New Delhi only.

And lastly, theBank undertakes not to revoke this guarantee during its currency except with the previous consent of the Purchaser in writing.

The Bank hereby declares that it has power to issue this guarantee under the Bank's Memorandum and Articles of Association and the undersigned has full powers to do so on its behalf under the Power of Attorney dated..... granted to him by the proper authorities of the bank

Dated the Day of

Attorney (signature of the person duly authorised to sign on behalf of the bank)

Witness

ANNEXURE-2 of GCC -A

PROFORMA FOR CONTRACT PERFORMANCE BANK GUARANTEE

(To be issued on appropriate valid non-judicial stamp paper)

This Deed of Guarantee made this Day of 200 by Bank Ltd (hereinafter called the 'Bank', in favour of Bharat Heavy Electricals Limited, having its Registered Office at BHEL House, Siri Fort, New Delhi – 110 049 (hereinafter called the 'Purchaser') throughunit.

Whereas M/s (hereinafter called the Vendor) proposes to enter into a Contract arising out of the Letter of Intent No addressed by the Company to the Vendor, for.....(scope of supply & services) (hereinafter called the 'Agreement').

And whereas the said Agreement provides that the Vendor shall submit a Bank Guarantee for a sum of Rs..... (Rupees..... only) towards Contract performance guarantee to be made in the form and manner therein specified.

And whereas the Vendor have approached (Bank) and at their request and in consideration of the arrangement arrived at between the said Vendor and the said Bank, the said Bank has agreed to give such guarantee as hereinafter mentioned to the aforesaid Purchaser.

Now, therefore, these presents witness that we (Bank) by the hand of Shri..... its lawfully and duly constituted attorney do hereby undertake to pay the aforesaid Purchaser a sum of Rs..... (Rupees) by virtue of this Guarantee without any demur, merely on a demand from the Purchaser and to keep the company indemnified to the extent of Rs....., by virtue of this guarantee against any loss or damage caused to or would be caused to or suffered by the Purchaser by reason of breach by the said Vendor of any of the terms or conditions contained in the said Agreement or by reason of the Vendor's failure to perform the said Agreement and for the payment of any money payable by the said Vendor to the Purchaser under the terms and conditions of the said Agreement (the decision regarding the breach, loss, damage or payment due being solely at the discretion of the Purchaser).

We further undertake to pay the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the Vendor, any suit or proceeding pending before any court or Tribunal relating thereto, our liability under these presents being absolute and unequivocal. The aforesaid guarantee will remain in force and we shall be liable under the same, irrespective of any concession for the time being granted by the said Purchaser to the Vendor in or for fulfilling the said Agreement and the guarantee will remain in full force irrespective of any change of terms, conditions or stipulations or any variation in the terms of the said Agreement irrespective of whether notice of such change and/or variation is given to us or not and claim to receive such notice of any change and or/variation is given to us or not.

ANNEXURE-3of GCC - A

PROFORMA FOR PERFORMANCE BANK GUARANTEE

(To be issued on appropriate valid non-judicial stamp paper)

This Deed of Guarantee made this Day of 200 by Bank Ltd (hereinafter called the 'Bank', in favour of Bharat Heavy Electricals Limited, having its Registered Office at BHEL House, Siri Fort, New Delhi – 110 049 (hereinafter called the 'Purchaser') throughunit.

Whereas M/s (hereinafter called the Vendor) has entered into a Contract arising out of the Purchase Order No addressed by the Purchaser to the Vendor, for.....(scope of supply & services) (hereinafter called the 'Agreement').

And whereas the said Agreement provides that the Vendor shall submit a Bank Guarantee for a sum of Rs..... (Rupees..... only) towards Performance Guarantee to be made in the form and manner therein specified.

And whereas the Vendor have approached (Bank) and at their request and in consideration of the arrangement arrived at between the said Vendor and the said Bank, the said Bank has agreed to give such guarantee as hereinafter mentioned to the aforesaid Purchaser.

Now, therefore, these presents witness that we (Bank) by the hand of Shri..... its lawfully and duly constituted attorney do hereby undertake to pay the aforesaid Purchaser a sum of Rs..... (Rupees) by virtue of this Guarantee without any demur, merely on a demand from the Purchaser and to keep the company indemnified to the extent of Rs....., by virtue of this guarantee against any loss or damage caused to or would be caused to or suffered by the Purchaser by reason of breach by the said Vendor of any of the terms or conditions contained in the said Agreement or by reason of the Vendor's failure to perform the said Agreement and for the payment of any money payable by the said Vendor to the Purchaser under the terms and conditions of the said Agreement (the decision regarding the breach, loss, damage or payment due being solely at the discretion of the Purchaser).

We further undertake to pay the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the Vendor, any suit or proceeding pending before any court or Tribunal relating thereto, our liability under these presents being absolute and unequivocal. The aforesaid guarantee will remain in force and we shall be liable under the same, irrespective of any concession for the time being granted by the said Purchaser to the Vendor in or for fulfilling the said Agreement and the guarantee will remain in full force irrespective of any change of terms, conditions or stipulations or any variation in the terms of the said Agreement irrespective of whether notice of such change and/or variation is given to us or not and claim to receive such notice of any change and or/variation is given to us or not.

Annexure-4 of GCC-A**SCHEDULE OF TECHNICAL DEVIATIONS:****TENDER ENQUIRY NO & DATE :****ITEM DESCRIPTION :****DUE DATE OF OPENING (PART-I):**

Sr.No	Specification Clause No	Technical Deviation	Remark/Reasons for seeking Deviations.
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We hereby confirm that except for above , there are no other Technical Deviations.

Representative/Bidder**Signature of Authorised****Name:****Designation:****Date:****Name of Organisation:****Seal:**

Annexure-5 of GCC-A**SCHEDULE OF COMMERCIAL DEVIATIONS:****TENDER ENQUIRY NO & DATE :****ITEM DESCRIPTION :****DUE DATE OF OPENING (PART-I):**

Sr.No	Specification Clause No	Commercial Deviation	Remark/Reasons for seeking deviation
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We hereby confirm that except for above, there are no other Commercial Deviations.

Representative/Bidder**Signature of Authorised****Name:****Designation:****Date:****Name of Organisation:****Seal:**

Annexure-6 of GCC-A

LIST OF CONSORTIUM BANK

The Bank Guarantees are to be established through any of the consortium Bank listed with BHEL as below .

1. State Bank Of India .
2. ABN AMRO BANK N.V.
3. Bank Of Baroda .
4. Canara Bank.
5. CITI Bank N A
6. Deutsche Bank AG .
7. HDFC Bank .
8. ICICI Bank Ltd.
9. IDBI Ltd.
10. Punjab National Bank .
11. Standard Chartered Bank .
12. The Honkong and Shanghai Banking Corporation Limited / HSBC.
13. State Bank of Hyderabad-New Delhi

The Letter of Credit shall also be opened through any of the bank listed above.

SECTION I

GENERAL CONDITIONS OF CONTRACT

Part –B

GENERAL TERMS AND CONDITIONS FOR INSTALLATION, TESTING AND COMMISSIONING AT SITE

1. SITE INSPECTION

- 1.1. Before tendering, the Tenderers are advised to inspect the site of work and working environment and be well acquainted with actual working conditions, facilities available, position of material and labour. No claim will be entertained later on the ground of lack of knowledge.

2. COMMENCEMENT OF WORK

- 2.1. BHEL will issue a letter to the Contractor when the Site is ready for start of the erection work giving sufficient notice for mobilisation.
- 2.2. The Contractor shall commence the work within the time indicated in the letter issued by BHEL and shall proceed with the same with due expedition without delay.
- 2.3. All the work shall be carried out under the direction and to the satisfaction of BHEL.

3. RESPONSIBILITIES OF THE CONTRACTOR

3.1. Tools & Plants

- 3.1.1. The Contractor is required to provide all necessary tools and plants, measuring/ testing instruments and handling equipments for handling, installation, testing and commissioning of Equipment.
- 3.1.2. The Contractor shall provide all the necessary temporary structures and necessary safety devices etc. during pre-assembly, installation, testing and commissioning of the Equipment.
- 3.1.3. The Tools & Plants to be arranged by the Contractor shall be in proper working condition. Their operation shall not lead to unsafe conditions.
- 3.1.4. It is not obligatory on the part of BHEL to supply any tools or tackles or other materials other than those specifically agreed to do so by BHEL.

However, depending upon availability, BHEL's handling equipment and other plants may be made available to the Contractor on payment of the hire charges/ free of charges as fixed, subject to the conditions laid down by BHEL from time to time. Unless paid in advance, such hire charges, if applicable, shall be recovered from Contractor's bills in one instalment.

- 3.1.5. All the properties/equipments/components of BHEL loaned with or without deposit to the Contractor in connection with the Contract shall remain properties of BHEL. The Contractor shall use each property for the purpose of execution of this contract. All such properties/ equipments/ components shall be deemed to be in good condition when received by the Contractor. The Contractor shall return them in good condition as and when required.

3.2. Consumables

- 3.2.1. The Contractor shall provide all consumables required for carrying out the work covered under his scope of work.

3.3. Field Office

- 3.3.1. No office accommodation will be provided by BHEL. Only open space will be provided by BHEL free of cost for constructing Contractor's office on a temporary basis.
- 3.3.2. The Contractor shall make his own arrangements for field office with necessary staff, watch and ward etc. as required for the execution of the work. After the completion of work, Contractor shall clear the site of all waste/ rubbish material and handover the clear site to BHEL.

3.4. Lighting

- 3.4.1. Permanent lighting inside the plant is to be provided by BHEL. However, if this light is insufficient to carry out day to day, contractor shall make necessary temporary lighting arrangements for smooth working.
- 3.4.2. All temporary wiring must comply with local regulations and will be subjected to engineer's inspection and approval before connecting to supply point.
- 3.4.3. It shall be the responsibility of the Contractor to provide, maintain the complete installation on the load side of the supply with due regard to the safety requirements at site. All cabling and installations shall comply in all respects with the appropriate statutory requirements.

3.5. Collection of Equipment/ Materials

- 3.5.1. The equipments/ materials despatched by the Supplier shall be received and stored at site by BHEL/ their sub-contractor.

- 3.5.2. The Contractor shall take delivery of shipment boxes/ equipments/ materials from the storage yard/ stores of BHEL. He shall also make arrangements for verification of equipment, safe custody, watch and ward of equipment after it has been handed over to him till these are fully erected, tested and commissioned and taken over by BHEL.
- 3.5.3. Contractor shall render all help to BHEL in inspection including handling, opening packages, re-packing, re-stacking etc., assessing and preparing estimates for repairs of components damaged during transit and storage and preparing estimates for fabrication/ procurement of materials lost / damaged. Contractor shall help BHEL to furnish all the data required by transporters, insurance company or their surveyors.
- 3.5.4. Contractor shall report to BHEL in writing any damages to equipments / components during drawal of the materials from stores, installation and commissioning. The above report shall be as prescribed by BHEL site management. Any consequential loss arising out of non-compliance of this stipulation will be borne by Contractor.
- 3.5.5. The Contractor shall handover all parts/materials remaining extra over the normal requirement with proper identification tags in a packed condition to BHEL stores.

3.6. Employment of Workman

- 3.6.1. The Contractor shall arrange all the skilled, semiskilled and unskilled labour required for the work of handling, installation, testing and commissioning and all other works envisaged in this tender. Only fully trained and competent men with previous experience on the job shall be employed. They shall hold valid certificates wherever necessary. BHEL reserves the right to decide on the suitability of the workers and other personnel who will be employed by the Contractor. BHEL reserves the right to insist on removal of any employee of the Contractor at any time if he is found to be unsuitable and the Contractor shall forthwith remove him.
- 3.6.2. If at any time, it is found that the Contractor is not in a position to deploy the required workmen due to any reason; BHEL shall have the option to deploy their workmen or make alternate arrangements at the Contractor's risk and cost. The expenditure incurred with overhead on this account will be recovered from the Contractor's bills.
- 3.6.3. The Contractor shall be responsible for proper accommodation including adequate medical facilities for personnel employed by him.
- 3.6.4. The Contractor shall be responsible for the proper behaviour and observance of all regulations by the staff employed by him.
- 3.6.5. The Contractor will be directly responsible for payment of wages to his workmen. A pay roll sheet giving all the payments given to the workers and duly signed by the Contractor's representative should be furnished to BHEL site for record purpose, if so called for.

- 3.6.6. The Contractor, in the event of his engaging 10 or more workmen must obtain independent licence under the contract labour (regulations and abolition) act 1970, from the concerned authorities based on the certificate (form-v) issued by the principal employer /customer.
- 3.6.7. The following are the responsibilities of the Contractor in respect of observation of local laws, employment of personnel, registration with statutory authorities, payment of taxes etc.
- (a) As far as possible, Unskilled Workers shall be engaged from the local areas in which the work is being executed.
- (b) The Contractor at all times during the continuance of this Contract shall, in all his dealings with local labour for the time being employed on or in connection with the work, have due regard to all local festivals and religious and other customs.
- (c) The Contractor shall comply with all State and Central Laws, Statutory Rules, Regulations etc. such as:-
- Payment of Wages Act, Minimum Wages Act, Workmen Compensation Act, Employer's Liability Act, Industrial Dispute Act, Employers Provident Fund Scheme, Employees State Insurance Scheme, Contract Labour (Regulation and Abolition) Act, 1970 and other acts, rules and regulations for labour as may be enacted by the Government during the tenure of the Contract.
- (d) The Contractor shall give to the local governing body, police and other relevant authorities all such notices as may be required by the Law.
- 3.6.8. Contractor shall be responsible for provision of health and sanitary arrangements (more particularly described in Contract Labour Regulation & Abolition Act), Safety precautions etc. as may be required for safe and satisfactory execution of contract.
- 3.6.9. It is the responsibility of the Contractor to engage his workmen in shifts and or on overtime basis for achieving the target set by BHEL. This target may be set to suit BHEL's commitments or to advance date of completion of events or due to other reasons. The decision of BHEL in regard to setting the installation targets will be final and binding on the Contractor.
- 3.6.10. The Contractor shall pay all taxes, license charges, deposits, duties, taxes, royalties, commission or other charges which may be levied on account of his operations in executing the contract. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.

3.7. Safety

- 3.7.1. All safety rules and codes applicable at site shall be observed by the Contractor without exception. The Contractor shall be responsible for the safety of the equipment/material and works to be performed by him and shall maintain all light, fencing guards, slings etc. or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards and due precautions shall be taken against fire hazards and atmospheric conditions.
- 3.7.2. In case any accident occurs during the installation or other associated activities undertaken by the Contractor thereby causing any minor or major or fatal injury to his employees due to any reason, what-soever, it shall be the responsibility of the Contractor to promptly inform the same to BHEL in prescribed form and also to all the authorities envisaged under the applicable laws as well to pay compensation as applicable.

3.8. Watch and Ward

- 3.8.1. Contractor has to arrange and provide watch and ward staff round the clock. Any theft or damage of component due to negligence of the Contractor will have to be replaced/ repaired by the Contractor.

3.9. Indemnification

- 3.9.1. The Contractor shall ensure that no damage is caused to any person/property of other parties working at site. If any such damage is caused, it is responsibility of the Contractor to make good the losses and/or compensate for the same.
- 3.9.2. The Contractor shall fully indemnify BHEL against all claims of whatsoever nature arising during the course of installation /performing work under the Contract.

3.10. General

- 3.10.1. In case the Contractor is required to undertake any work outside the scope of this contract, the rates payable shall be those mutually agreed upon.
- 3.10.2. Any delay in completion of works/or non achievement of periodical targets due to the reasons attributable to the Contractor, the same will have to be compensated by the Contractor either by increasing manpower and resources or by working extra hours and/or by working more shifts. All these are to be carried out by the Contractor at no extra cost.
- 3.10.3. The Contractor shall arrange, coordinate his work in such a manner as to cause no hindrance to other agencies working in the same premises.
- 3.10.4. In case of any class of work for which there is no such specification as laid down in the Contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.

- 3.10.5. No idle labour charges will be admissible in the event of any stoppage caused in the work resulting in Contractor's labour being rendered idle due to any cause at any time. However, it shall be endeavour of BHEL to provide required inputs in time as per the installation and commissioning schedule.
- 3.10.6. The Contractor shall take all responsible care to protect the materials and work till such time the plant/equipment has been taken over by BHEL.
- 3.10.7. The Contractor shall not stop the work or abandon the site for whatsoever reason of dispute, excepting force majeure conditions. All such problems/disputes shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly.

4. FACILITIES TO BE PROVIDED BY BHEL

4.1. Power for Installation Services

- 4.1.1. Power (three phase, 415V / 440V, 4-wire) will be provided at one point near the site of work free of charge. The required distribution boards, switchboards, bus bars, earthing arrangements, protection devices, cables etc, for drawing the power shall be arranged by the Contractor.
- 4.1.2. Contractor shall arrange adequate floodlights, hand lamps and area lighting as required.
- 4.1.3. BHEL is not responsible for any loss or damage to the Contractor's equipment as a result of variations in voltage or frequency or interruptions in power supply.

4.2. Water for Installation Services

- 4.2.1. Water will be made available at one point near the area of work by BHEL free of cost. All arrangements for further distribution have to be made by the Contractor.

4.3. Overhead Travelling Crane

- 4.3.1. BHEL is planning to install Overhead Travelling Crane in the plant. The Contractor will be permitted to use the Overhead Travelling Crane as and when available, free of charge.
- 4.3.2. In case of non availability of crane, it is the responsibility of the Contractor to make alternate arrangements for lifting of components.

4.4. Non-Availability of Facilities

- 4.4.1. BHEL shall not be responsible for any inconvenience or delay caused due to any interruption of power supply, water supply or availability of crane and no compensation for delay in work can be claimed by the Contractor due to such non-supply on the grounds of idle labour, machinery or any other grounds.

5. RIGHTS OF BHEL

- 5.1. BHEL reserves the following rights in respect of this Contract without entitling the Contractor for any compensation.
- 5.2. To get work done through other agency at the risk and cost of the Contractor in the event of Contractor's poor progress, or inability to progress the work for completion as stipulated in the Contract, poor quality of the work, persistent disregard to instruction of BHEL, assignment, transfer, subletting of the contract without permission of BHEL, non-fulfilment of any contractual obligation etc. and to claim/recover compensation for such losses (including penalty for delay) from the Contractor including BHEL's supervision charges and overheads.
- 5.3. To recover any money due from Contractor from any money due to the Contractor under this Contract or any Contract or from the Contract Performance Bank Guarantee.
- 5.4. To affect recovery from any amounts due to the Contractor under this or any other contract or in any other form the money BHEL is forced to pay to anybody due to Contractor's failure to fulfil any of his obligations.
- 5.5. To deploy BHEL's Fitters, Welders, Operators and Technicians in case of emergency/poor progress/ deficiency in skill on the part of employees of Contractor and recover the expenditure on account of the same from Contractor's bills.
- 5.6. While every endeavour will be made by BHEL, they can not guarantee uninterrupted work due to conditions beyond their control. Contractor will not be entitled for any compensation/ extra payment on this account.

6. SUB-CONTRACTING

- 6.1. Subcontracting/subletting of the work by the Contractor, if required, shall only be after written approval from BHEL.

7. INSURANCE

- 7.1. BHEL shall arrange for insuring the Equipment and materials/properties of BHEL covering the risk during transit, storage, installation and commissioning.
- 7.2. It is the sole responsibility of Contractor to insure his workmen against accidents and injury while at work as required by relevant rules and to pay compensation to workmen as per Workmen's Compensation Act. Contractor shall insure his staff against accidents. The work will be carried out in a protected area and all the

rules and regulations of BHEL which are in force from time to time, will have to be followed by the Contractor.

- 7.3. If due to negligence and for non observation/observance of safety and other precautions, any accident/injury occurs to any other persons/public, the Contractor shall have to pay necessary compensation and other expenses, if so decided by the appropriate authorities.
- 7.4. If due to the Contractor's carelessness, negligence or non-observance of safety precaution, damage to BHEL's property and personnel occurs and if BHEL is unable to recover in full cost from the insurance company, the same will be recovered from Contractor.
- 7.5. It shall be the responsibility of Contractor to provide security arrangement for the equipment/materials belonging to BHEL and handed over to Contractor for installation/transportation till the same are taken over by BHEL.

8. QUALITY ASSURANCE

- 8.1. The Contractor shall strive to achieve the highest quality standards in his work to ensure that the machine exceeds the guaranteed performance levels and has trouble free operation during commercial operation. The Contractor shall prepare a site quality assurance plan and submit it to BHEL for periodic review.

9. OCCUPATIONAL HEALTH AND ENVIRONMENTAL MANAGEMENT

- 9.1. BHEL follows Environmental Management under ISO 14001:1996 standard and Occupational Health & Safety under OHSAS 18001 standard. It shall be the endeavour of the Contractors to meet and implement the requirements of the above standards.

10. STRIKES & LOCKOUT

- 10.1. The Contractor will be fully responsible for the disputes and other issues connected with his workman. In the event of the Contractor's workman resorting to strike or the Contractor resorting to lockout and if the strike or lockout declared is not settled within a period of one month, BHEL shall have the right to get the installation work executed employing its own workman or through any other agencies or both and the cost so incurred by BHEL shall be deducted from the Contractor's bills.
- 10.2. For all purposes whatsoever, the employees of the Contractor shall not be deemed to be in the employment of BHEL.

11. CONTRACTOR'S SITE REPRESENTATIVE

- 11.1. The Contractor shall furnish to the Contract Engineer the name, designation and address of his authorised site representative who shall coordinate the day to day activities at site and all communication, reference, complaints, notices, shall be delivered to him. All such communication, reference, complaints, notices, etc shall be deemed to have been duly given to the Contractor.

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION	REMARKS
24	GENERAL :				
24.1	Machine Model No.	Vendor			
24.2	Total connected load (KVA):	Vendor			
24.3	Floor area required (Length, Width, Height) for complete machine & accessories	Vendor			
24.4	Total weight of the machine	Vendor			
24.5	Weight of heaviest part of machine	Vendor			
24.6	Dimensions and weight of largest piece for shipment	Vendor			
24.7	Weight and Dimensions of the heaviest assembly / sub-assembly of the Machine	Vendor			
24.8	Dimensions and weight of heaviest piece for shipment	Vendor			
24.9	Vendor to submit, along with offer, reference list of customers where similar machines have been supplied mentioning broad specifications of the supplied machine i.e. Speed of operation, bed size, Load Capacity, etc	Vendor			
24.10	Drawing showing overall dimensions of the machine	Vendor			
24.11	Detailed catalogues , sketch/ photographs of the m/c and accessories/ attachments should be submitted with the offer.	Required			
24.12	Hydraulic, Pneumatic & oil piping should be preferably metallic except places where flexible piping are essential. All the pipes required for the same shall be included in the standard scope of the machine.	Vendor			