



Bharat Heavy Electricals Ltd.,

(A Government of India undertaking)

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Electronics Division

PB No.2606, Mysore Road, Bangalore-560026, India Tel 080 26998366 / email : suryaprakash@bheledn.co.in

Tender document for supply of : Selective Soldering Machine

R F Q Number: TRSM900048

Tender Qty : 1 Number

Tender Due Date and Time : 28.08.2009 13.00 Hrs

Tender Opening Date and Time: 28.08.2009 13.30 Hrs

Place of opening of Tender : SA – MM Conference hall

Scope: Supply, Installation and Commissioning of **Selective Soldering Machine**

1. Two part Bid - Tender shall be submitted in two parts:

a. Part I – Techno commercial bid without prices.

b. Part II - Price bid

Tender (quotation) shall be submitted in a sealed envelope super scribed with **RFQ NUMBER /** and **DUE DATE** on it. Tender to be dropped in the tender box placed in the Reception area at our works with caption "Sub Assembly".

Tender shall be addressed to **Sr.DGM / EM - Coml & MM**, Electronics Division, Bharat Heavy Electricals Ltd., Mysore road, Bangalore 560026.

2. Delivery Required: Within 16 weeks from date of Purchase Order.

3. Terms and conditions:

- 1. All the Bidders shall Comply with **Prequalification Criteria** and **Technical Specification** mentioned in this specific tender. Offers not complying with these are liable to be rejected.
- 2. Bidders are required to comply with the **General Terms and Conditions** as per (Annexure -I)



Pre qualification criteria

- 1. The vendor shall be an Original Equipment Manufacturer (OEM)
 - a. Based in India
 - b. Foreign OEM with Authorized Indian dealer(s) / representative(s) for sales & service. The authorization letter for the dealer/ representative shall be provided.
 - c. Offer can be submitted by the OEM or their authorized dealers in India along with an authorization letter. However Purchase Order will be placed on the lowest technically acceptable bidder on the OEM only.
 - d. If the offer is from an authorized representative in India , the Indian representative cannot quote for the same equipment from 2 or more different OEM's
- 2. The offer shall be only for new equipment and not for any refurbished / used equipment.
- 3. All the parts used in the machine shall also be new and not used / refurbished ones. A declaration to the above effect to be furnished.
- 4. The vendor should have already supplied and installed at least 5 nos. of similar machines and operating satisfactorily for at least one year during the last three years. The details of the customers with contact details, machines installed, date of installations etc. to be provided.
- 5. The vendor shall be in a position to provide service and spares support for the installations in India.
- 6. The vendor or their authorized service representatives should have trained engineers in India for commissioning & service for the offered equipment.
- 7. The vendor shall be in a position to undertake AMC for the equipment with BHEL after the expiry of the warranty/ guarantee period either directly or through a service representative.
- 8. The vendor shall arrange for a demonstration of the machine or a similar system operating in India, if required by BHEL. Alternately the vendor shall furnish a complete video of the operation of the machine, in case of no installations in India.
- 9. The vendor shall furnish a comprehensive warranty for at least 12 months from the date of commissioning or 18 months from the date of delivery, whichever is early.
- 10. The vendor shall guarantee the performance of the equipment for at least 12 months from the date of commissioning.

NOTE:

- 1. Pre qualification will be carried out based on the details furnished by the vendor / feedback from their customers / inspection of the company / product if required by BHEL and at its sole discretion.
- 2. The Pre qualification criteria are mandatory requirements and the technical bids will be evaluated only when the Pre Qualification criteria are met.



A. Scope:

Supply, installation and commissioning of Selective soldering machine as per the following specifications.

B. Technical Specifications:

The offer shall be corresponding to the parameters under the specifications below or better. Point wise compliance to the following specification is required.

S1 No.	PARAMETER	REQUIREMENT
1	BASIC REQUIREMENT	
а	Maximum PCB Width	350mm
b	PCB thickness	0.8 to 3.2 mm
С	PCB top side clearance	Minimum 75 mm
d	bottom	20mm
е	Edge	3 mm
f	Air Pressure	Less than 6 bar
g	Mode of transport	Conveyor and/or Robotic Arm
h	Direction	Left-right or Loop back with adjacent loading & unloading points.
I	Power Requirement	415 V AC 3 phase or 230 V AC 1phase (50 Hz)
j	Environmental conditions for operation	Ambient Temperature up to 40 deg C , RH up to 95 %
k	Compatibility	The machine should be lead free compatible
1	Mode of operation	Stationary PCB with moving nozzles or stationary nozzles with moving PCB
m	Application	Soldering of through- hole components on a PCB.
n	Mode of operation	Stand alone



2	CONSTRUCTION	a) Modular and fully enclosed construction.b) The machine should be a single enclosed unit.
3	STAGES OF MACHINES	
a)	DROPJET FLUXER	 a) In this unit, individual drop of flux has to be sprayed on to the PCB pads. b) The technology should be precise enough to spray the sufficient quantity of flux drops to cover the whole pad. c) The nozzle should be self cleaning. d) Fluxing should have a accuracy of +/_ 0.25 mm. e) Flux tank of suitable capacity to be provided.
		f) Nozzle should be capable for spraying different types of fluxes.
b)	PRE HEATER	One number of pre-heater of suitable rating to be provided. Heater should cove entire area of PCB.
c)	SOLDER MODULE	



a)Select wave	a) In this module individual points will be soldered.
	b) Different set of nozzles for soldering different types of components to be provided.
	c) The nozzle should be able to do point to point soldering as well as drag soldering etc.
	d) solder point should have a accuracy of +/_ 0.25 mm
	e) Suitable arrangement for storing different types of nozzles in the machine and changing the nozzle as per the requirement of the program.
b)Additional features (for solder unit)	a) Solder unit should have nitrogen cover to provide inert atmosphere and aid in soldering process.
	b) Solder module should purge the nozzles before soldering to prevent clogging of nozzles.
c)Solder level controller	a) Suitable mechanism to maintain the level of solder in the solder bath.
	b) Suitable error message if solder level is below the desired level.
d)Dross control	Suitable mechanism or tools to control and clean the Dross from solder pot.
4 SOLDER HEIGHT MEASUREMENT SYSTEM	The machine should have a solder height measurement system for accurate soldering.
5 CONVEYOR SYSTEM	The machine should have a suitable conveyor system for accurate positioning of PCB.
6 PCB HANDLING SYSTEM /ROBOTIC ARM	The arm should have capability to handle the PCB as well as pallets with PCB.





7	PROGRAMMING	a) Suitable system for programming offline and manual data entry.
		b) Suitable system to transfer the data from external PC to machine and vice versa via a USB port.
		c) Option to program the machine with CAD and other data formats.
8	PROCESS VIEWING	A suitable camera vision system for process viewing. Option to capture the image and recording.
9	SUITABLE EXHAUST SYSTEM	Exhaust provision to handle solder fumes as well as flux fumes.
10	CONTROL UNIT	a) Suitable interfaces to control the speed of conveyor, programming fluxing area etc.
		b) Machine diagram, display for error messages, maintenance menu.
		c) Suitable controls for heating unit.
		d) Suitable calibration system for solder wave height measurement.
		e) Suitable UPS for control unit for graceful shutdown.
11	SAFETY	a) Suitable Multi color Signal tower to be provided.
		b) Emergency stops to be provided at suitable locations.
		c) Safety interlocks to be provided.
		d) Suitable exhaust at appropriate location.



12 TOOLS	All necessary tools including a set of
	dross removal tools for operation &
	maintenance to be provided.

C. Details to be furnished along with the technical offer

- 1. Equipment parameters with brief explanation of features.
- 2. If more than one model is quoted, separate offer with complete technical details shall be submitted.
- 3. Additional Accessories, which will enhance the performance of the system, shall be quoted separately with price break up.
- 4. A clauses wise deviation, if any, has to be brought out clearly. If there are no deviations, the vendor has to positively certify compliance to the specifications in toto.
- 5. The complete technical information and catalogue shall be given.
- 6. Authorization letter from the OEM to be provided, if applicable.
- 7. Details of authorized service agents in India to be furnished
- 8. Reference list of customers to be furnished.
- 9. List of recommended spares for maintenance purposes to be indicated

D. Documents to be furnished along with Equipment

- 1. Operation, Maintenance, Service & spare parts manual have to be supplied along with the equipment.
- 2. Pre-shipment Calibration certificates, if any shall be furnished. The subsequent calibration process and periodicity shall be furnished along with the authorized calibration agencies.
- 3. Supplier shall guarantee for one year of trouble free performance of the instrument from date of installation.
- 4. The equipment and accessories shall carry comprehensive warranty of one year from the date of installation including spares and service.
- 5. Training of the operators to be provided at BHEL / EDN for the operations and maintenance of the machine.
- 6. The requirements of civil, electrical, compressed air connections exhaust etc. for the machine need to be provided.
- 7. Terms of Annual maintenance contract to be indicated.



Annexure -1

General Terms & Conditions for Supply, installation and commissioning of Capital Items for Sub Assembly (Two part bid)

Bidders are required to read the general terms & conditions carefully and submit their quotation covering all the points. Any order resulting from this enquiry shall be governed by the general terms and conditions listed below.

Enquiry / Request For Quotation (RFQ):

- (a) Any Purchase Order resulting from this enquiry shall be governed by **these general terms and conditions listed below and special terms and conditions, if any, along with this enquiry** of Bharat Heavy Electricals Limited, Electronics Division, Bangalore-560026 (BHEL EDN).
- (b) Any of the terms and conditions not acceptable to supplier, shall be explicitly mentioned in the quotation. Otherwise, it will be treated as that all terms and conditions of this enquiry are acceptable.
- (c) If counter terms and conditions are offered by supplier, BHEL EDN shall not be governed by such terms and conditions, unless it is agreed and incorporated in the Purchase Order of BHEL EDN.
- (d) Any deviation to the terms and conditions not mentioned in the quotation by supplier in response to this enquiry will not be considered, if put forth subsequently or after issue of order, unless clarification is sought for by BHEL EDN and agreed upon in the Purchase Order of BHEL EDN.
- (e) BHEL EDN reserves the right to adopt Reverse Auction for the enquiry sent at any point of time after technical evaluation, at its discretion. Bids with non acceptance of reverse auction will be liable for rejection. BHEL may also open the price bids at its discretion.
- (f) BHEL EDN shall be at liberty to cancel the tender at any time, before ordering, without assigning any reason.
- **1. Quotation :** Quotation shall be submitted in two parts:

(a) Techno-commercial i.e., Un-priced Bid:

Techno-commercial bid shall be submitted with complete description of the equipment, specification compliances to the enquired specification and all the commercial terms & conditions indicated in the **QUOTATION FORMAT** (ANNEXURE - A / ANNEXURE - B). Any other enclosure, which the supplier wishes to submit like product catalogue, technical literature etc., may also be submitted in this sealed envelope super scribed clearly as "TECHNO-COMMERCIAL BID" with RFQ No. and DUE DATE. Un-priced copy of price bid (without price) must be enclosed with this techno-commercial bid.

Confirmation to BHEL specifications shall be indicated by the vendor in the respective columns provided in the purchase specification wherever applicable. Deviations to the specification if any shall be brought out clearly indicating "DEVIATION TO BHEL SPECIFICATION" without fail as a part of technical offer.



Compliance to Pre-qualification criteria shall also be enclosed with the Techno-commercial bid.

Manufacturer's name, their trade mark and brand, part number, alternate material to the one asked in enquiry, if any, should be mentioned in quotation and illustrative leaflets giving technical particulars etc. are to be attached to facilitate consideration and technical evaluation of the quotation.

(b) Price Bid:

i. Foreign Purchase (FE Quote):

Price bid should contain basic unit price, total price, currency, including packing and any other charges on **FOB** basis in a sealed envelope super scribed clearly as "**PRICE BID**" with RFQ **No. and DUE DATE.** Installation, commissioning, start-up and training charges (if any) shall also be indicated in the price bid.

It is preferred to indicate the rates in both figures and words. In such case, if there is difference / discrepancy between the rates in figures and words, the **least of the two** will be considered.

ii. Indigenous Purchase (INR Quote):

Price bid should contain basic unit price, total price, on **FOR D**estination basis (delivery at BHEL – EDN indicating Duties, Taxes, packing, forwarding freight and insurance) in a sealed envelope super scribed clearly as "**PRICE BID**" with **RFQ No. and DUE DATE.** Installation, commissioning, start-up and training charges (if any) shall also be indicated in the price bid

It is preferred to indicate the rates in both figures and words. In such case, if there is difference / discrepancy between the rates in figures and words, the **least of the two** will be considered.

2. <u>Bid Submission</u> Both these sealed envelopes [(a) Techno-commercial i.e., un-priced Bid and (b) Price Bids] shall be placed in a **separate sealed envelope** and super scribe clearly with RFQ No. and DUE DATE. The above sealed envelope (Tender) shall be dropped before the due date and time in the tender box marked "Sub Assembly" kept at BHEL-EDN's Reception area of our works. This being capital equipment and two part bid, bids through FAX and email are not acceptable

BHEL EDN is not responsible for any delay in receipt of quotation sent by supplier through post / courier. Hence bidders to ensure / ascertain timely submission of offers well in advance.

Separate quotation should be submitted against each enquiry / RFQ.

Late Tenders i.e., Tenders received after due date and time will not be considered and stands rejected.

- **3.** The rate quoted against each item shall be in units stated in the enquiry. Where quotation is in terms of unit other than that in enquiry, relationship between the two units must be furnished in the quotation.
- **4.** As far as possible, the quotations shall be free from corrections / overwriting. Corrections / overwriting, if any should be signed by authorized person with the company seal. Any typographical errors, totaling mistakes, currency mistakes, multiplication mistakes, summary



mistakes observed in priced bids, BHEL may consider whichever is beneficial to BHEL for evaluation.

- 5. Quotations are to be duly signed. Unsigned bids / offers are liable for rejection.
- **6.** Tenders / Techno commercial bids will be opened at **13:30 hrs.on the due date**, All the tenderers or their authorized representatives (with authorization letter from their principals) may witness opening of techno-commercial bid on the due date.
- **7.** After evaluation of techno-commercial bids, price bids of only those which are technically & commercially accepted, will be opened on a subsequent date, which will be intimated to the concerned in advance for witnessing of price bid opening.

However BHEL EDN reserves the right to adopt Reverse Auction at any point of time.

- **8.** The quantity in each item to be purchased may vary from quantity enquired according to the actual requirement at the time of placing the purchase order. Quantity discount, if any, should be mentioned in the quotation.
- **9.** Withdrawal from the quotation after submission till order is placed will entail cancellation of the enquiry. Such supplier is liable for de-listing for future enquiries at the sole discretion of BHEL EDN.
- 10. Purchase Order will be placed on the lowest bidder (L1) only among the technically & commercially accepted quotations. Lowest quotation is determined on the basis of Total Cost to BHEL EDN including basic value, taxes and duties, freight, insurance, loading factors for deviations to terms and conditions
- 11. BIDDERS (for indigenous purchase) shall indicate clearly Excise duty, Education cess, Sales Tax/VAT, Octroi, Entry tax, Service Tax as applicable for the quoted items. In the absence of clarity of these, any claim at a later date will not be entertained. Any changes in Taxes and duties after award of the contract will not be considered except such of those, which are imposed by Govt. notification with documentary proof within the contractual delivery. Seeking price amendments for change in Excise duty due to crossing of turnover limits will not be considered.

12. D & B Report by foreign Vendors:

In case of foreign vendors, the vendors should obtain a report from **Dun & Bradstreet** or equivalent and submit a copy of the report with their Duns number mentioned along with the techno commercial bid.

13. Payment of Agency Commission to Indian Agent (for Foreign purchase):

In case OEM involves Indian agent for supply of the items / services, OEM / Indian agent shall furnish / confirm the following information along with the Techno Commercial bid:

- (a) Registration status of Indian Agent with DGS&D / BHEL / Any other Govt Agency.
- (b) Commission / general retainer fee payable to Indian Agent and percentage.
- (c) If agency commission is payable by the foreign principal / OEM, such commission shall be received by Indian agent through inward EFT remittance through banking channels and disbursed in rupees only.
- (d) Tax at source deduction is applicable to the agency commission paid to the Indian agent as per prevailing rules.
- (e) If the respective Indian Agents are not registered, they are required to register their names with BHEL by providing the following information for registration:



- (i) Name of the foreign firm / original equipment manufacturer represented by the Indian representative / Indian Agent.
- (ii) Copy of Agency agreement.
- (iii) PAN No, Name, Address of Bankers in India and Abroad.
- (iv) Nature of services to be rendered by Indian Agent / Indian representative and percentage of commission payable to Indian Agent / Indian representative by Principal / original equipment manufacturer.
- (f) Undertaking to be submitted by Indian Representative / Agent that the agency commission would be accepted in Indian Rupees only and through EFT remittance through banking channel for the services rendered towards the execution of the orders.
- 14. <u>PURCHASE ORDER</u>: Placement of Purchase order will be considered on the lowest bidder (L1) only among the technically & commercially accepted quotations. Lowest quotation (L1) is determined on the basis of the total cost to BHEL. However BHEL does not bind itself to accept the lowest rate quoted, but reserves the right to accept whole or part of any quotation at it's sole discretion. No import license will be given by BHEL unless other wise stated specifically.

(a) FOR FOREIGN PURCHASE

Total cost to BHEL = Total basic value in foreign currency + FOB charges (if any) + Packing & Forwarding charges (if any) + Cost Insurance Freight (CIF) + Basic Custom Duty (BCD) + Counter Veiling Duty (CVD) + Educational Cess + Special Additional Duty (SAD) + Entry TAX + Service TAX (if applicable) + Loading factors for deviations to commercial terms & conditions.

Note: Exchange rate ruling on the date of Tender opening (Techno-commercial / un-priced Bid) will be considered for converting foreign currency to Indian currency. Exchange rates published in Economic Times (TT selling) will be considered.

(b) FOR INDIGENOUS PURCHASE

Total cost to BHEL = Total basic value + Packing & forwarding charges + Excise duty + Education cess + sales Tax/VAT + Octroi + Exit/Entry tax + Freight & Insurance + Service Tax (if applicable) + Loading factors for deviations to commercial terms & conditions.

15. FIRM PRICE: Rates quoted should be firm till the execution of the order including installation and commissioning.

16. TERMS OF PAYMENT:

(a) FOR FOREIGN PURCHASE:

Payment will be made against "SIGHT DRAFT" on presentation of dispatch documents to our bankers .

The payment terms are as follows:

(i) 90% against complete dispatch documents i.e. AWB / BOL, Invoice, Packing list, Warranty certificate, Certificate of country of origin etc., & balance 10 % on submission of Performance Bank Guarantee (PBG).



(ii) If PBG is not agreeable vendors can also accept for the final 10% payment, payable after the warranty period + 6 months of claim period against supplementary invoice. In such cases loading for PBG is not applicable.

Payment through LC can be considered subject to loading factors as per **Clause 28**. Bank charges are to respective accounts.

(b) FOR INDIGENOUS PURCHASE:

- (i) 90% basic payment + 100% taxes & duties with 30 days credit & balance 10% basic against submission of PBG.
- (ii) Payment through bank will attract loading factors as per clause 28. Bank charges are to respective accounts
- (iii) If PBG is not agreeable, vendors can also accept for the final 10% payment, payable after the warranty period + 6 months of claim period against supplementary invoice. In such cases loading for PBG is not applicable.
- (iv) Vendors sales tax/ECC/VAT registration number shall be mentioned in quotation.
- **17. ADVANCE PAYMENT**: Quotations with "Advance payment" or "Inland letter of credit" is liable for rejection.
- 18. <u>PENALTY:</u> Failure to deliver within the delivery time as per purchase order will attract unconditional penalty of 0.5 % (half percent) per week or part thereof at the basic price of the goods for the undelivered quantity, subject to a maximum of 10%.

FOR FOREIGN PURCHASE

Date of Airway bill / Date of Bill of Lading / Date of receipt by Freight Forwarder whichever is earlier shall be considered as delivery date for the purpose of penalty calculation.

FOR INDIGENOUS PURCHASE:

If pre-shipment inspection is involved, date of issue of pre-shipment call by the vendor along with test certificates / test reports / certificate of conformance / calibration reports as proof of completion will be treated as date of dispatch for the purpose of penalty calculation.

In the absence of reports stated above, actual date of inspection will be considered as date of dispatch for penalty calculation.

Date of receipt shall be considered as delivery date for the purpose of penalty calculation.

19. <u>PBG:</u> Performance Bank Guarantee (PBG) to be submitted on Rs.100/- non-judicial stamp paper as per the BHEL prescribed format given in ANNEXURE - E / ANNEXURE - F for 10% of the basic equipment value obtained from any BHEL member (consortium) banks indicated in ANNEXURE-G.

PBG shall be valid for entire warranty period plus 6 months claim period.

The Bank Guarantee shall be sent directly by the issuing Bank with their forwarding letter to the concerned Purchase Executive.



- 20. <u>A. WARRANTY</u>: Equipment shall have warranty period of 18 months from the date of dispatch or 12 months from the date of commissioning whichever is earlier. Offers not complying to this is liable for rejection
- **<u>20.B GUARANTEE:</u>** The vendor shall guarantee the performance of the equipment for at least 12 months from date of commissioning. Offers not complying to this is liable for rejection

21. TERMS OF DELIVERY:

(a) FOR IMPORTED PURCHASE:

Price offered shall be for goods packed and delivered **F.O.B.** (named international Airport / sea port) including packing, forwarding, Handling, Ancillary charges like processing of Sight Draft, Letter of credit (L/C) if applicable, negotiation of bank documents, Export declaration, Certificate of origin etc. Consignment shall be handed over to our authorized Freight Forwarder / Consolidator to be mentioned in the Purchase Order..

Packing shall be Road / Rail / Air / Sea worthy, best suitable for transshipment and to take care of transit damages.

Vendors shall indicate the name of International Airport / Seaport.

Note: Name of International Airport has to be selected from any one of the airports / sea ports indicated in the table provided in **ANNEXURE – C.**

(b) FOR INDIGENOUS PURCHASE:

Equipment shall be delivered on door delivery basis to BHEL EDN, Bangalore inclusive of packing, forwarding, freight and insurance charges. Offers not complying to this is liable for rejection.

Packing shall be Road / Air worthy, best suitable for transshipment and to take care of transit damages.

Vendors may dispatch the consignments through EDN/BHEL approved transporters indicated in **ANNEXURE - D** on Door Delivery basis.

Smaller consignments can be dispatched through Courier services / RPP with the prior approval of the purchasing Executive.

22. <u>DELIVERY SCHEDULE:</u> In the quotation, earliest firm delivery (number of weeks) by which material will be delivered from the date of order must be indicated. Quotations with delivery term such as `ex-stock', `subject to prior sale', or `delivery at the earliest' are liable for rejection.

BHEL delivery requirement is indicate in page 1. For non compliance of delivery requirement loading factors will be applicable as per cl 28.

23. <u>VALIDITY:</u> Quotation should remain valid for a minimum period of **90 days** from the date of technical bid opening.



24. POST-ORDER REQUISITES:

- a) Pre-shipment inspection at vendor's works, if required, will be carried out by BHEL. Required assistance will have to be provided by the vendor at the time of pre-shipment inspection.
- **b)** Test certificates, Calibration certificates and warranty certificates as stipulated at the time of ordering shall be furnished.
- c) Items shall be dispatched by Air/Road/Rail/Sea worthy packing. Any damage and later rejection, due to poor / improper packing shall be to supplier's account. For air consignments packed in wooden material **Fumigation Certificate** shall be compulsorily forwarded along with invoice, packing list, etc to the freight forwarder.
- **d)** Any damage / rejection /shortage should be made good or replaced immediately without any extra cost to BHEL.
- e) Wherever commissioning is involved, it shall be carried out by the vendor's qualified engineers. Scope of work includes installation, commissioning and start-up trials till satisfactory performance level is reached as certified by BHEL. For installation and commissioning of equipments, personnel registered with ESI and PF authorities to be arranged by vendor
- **25.** Any dispute arising out of this, shall be referred to the sole arbitration of Head of Dept. Materials Management of group concerned, BHEL EDN or any other officer nominated by him and his award shall be final and binding on the parties. The venue of the arbitration in all cases shall be Bangalore.
- **26.** Any legal suit in respect of this enquiry lies in the court of Jurisdiction of Bangalore (India) only.
- 27. <u>RISK PURCHASE:</u> The purchaser at his discretion may also make purchase of the materials NOT supplied in time at the RISK & COST of the supplier. In this event, it will be obligatory on the part of the supplier who fails to supply the goods in time to make good to BHEL any loss due to such risk purchase.

28. LOADING FACTORS:

Loading factors as detailed below will be added to the quoted price (basic) to evaluate the lowest quote for non compliance of BHEL standard commercial terms.

A(i). For non compliance of standard Terms of payment (For Foreign Purchase Orders)

SI.	BHEL standard term	If you quote	Loading factor in % for non-
No.			compliance
1	90% against "SIGHT DRAFT" + 10% against PBG	Payment through Letter of Credit (LC)	10 %

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A(ii). For non compliance of standard Terms of payment (For Indigenous Purchase Orders)

SI.	BHEL standard term	If you quote	Loading factor in % for non-
No.			compliance
1	90% basic payment + 100%	Payment through bank	10 %
	taxes & duties with 30 days credit		
	and balance 10% against	100% with 30 days	Nil
	submission of PBG	credit & submission of	
		PBG	

B. For non compliance of Penalty clause:

SI. No.	BHEL standard term	If you quote	Loading factor for non- compliance
1	Penalty of 0.5% per week or	Not agreed.	10 %
	part thereof subject to max. of	5% max., agreed.	5%
	10% on the basic value of the	Other than the above.	10% - (minus) agreed max. %
	items not supplied /delayed		

C. For non compliance of Performance Bank Guarantee (PBG):

SI. No.	BHEL standard term	If you quote	Loading factor for non- compliance
1	PBG for 10% of the basic material cost shall be furnished	Not agreed.	10 %
	in the BHEL prescribed format.	5% agreed.	5 %
		Other than the above.	10% - (minus) agreed max. %

D. For Non conformance to delivery requirement indicated in the RFQ:

SI. No.	BHEL standard term	If you quote	Loading factor for non- compliance
1	Delivery requirement as indicated in the RFQ in number of weeks from the date of issue of PO	Not agreed for the stipulated delivery in the enquiry	0.5 % per week up to max. of 2 %.

Note: Our delivery requirement is 16 weeks from the date of order and hence delivery beyond 20 weeks is not acceptable.

- **29 Installation & Commissioning :** For installation and commissioning of equipments, personnel registered with ESI and PF authorities to be arranged by vendor.
- **30 Limitation of liability :** Limitation of liability by the vendor is limited to the value of the order.
- **31. Weight and Dimension :** Weight and Dimension of the consignment with packing (gross weight) for delivery shall be mentioned in the offer.





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- **32.** BHEL reserves the right to RE-FLOAT/REJECT/CANCEL this TENDER ENQUIRY (RFQ) without assigning any reason or cause thereof. Quotes received against this TENDER ENQUIRY are subject to and governed by all these terms and conditions. BHEL's decision will be final in awarding of the contract and binding on all vendors.
- **33.** BHEL will not be responsible for any loss, damage or injuries to vendor's personnel sustained during installation / commissioning/start-up trials. Vendor shall ensure compliance with all statuary requisites as laid down by local bodies, state and central Government.

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ANNEXURE - A

QUOTATION FORMAT

TECHNICAL BID (TO BE ENCLOSED WITH TECHNO-COMMERCIAL BID)

(for Foreign Purchase Orders)

SI. No.	Particulars	Bidder's confirmation
1	Price basis: Firm i.e., from the date of PO to completion of contract Note: Refer cl 1 b (i) (Price variation not acceptable)	Acceptable / Not acceptable
2	Terms of Payment: Against "SIGHT DRAFT" on presentation of documents to our bankers. (a) 90 % is payable on negotiation of complete set of original documents & balance 10% against submission of PBG (c) Deviation if any please specify Note: Refer clause 16	(a) Acceptable / Not acceptable
3	BHEL's penalty clause: (a) Delay in delivery as per PO delivery date will result in penalty of 0.5 % per week and part thereof subject to maximum of 10% on the value of the items not supplier/delayed. (b) Deviation if any Please specify Note: Refer clause 18	(a) Acceptable / Not acceptable (b)
.4	Performance Bank guarantee: PBG for 10% of the basic material cost shall be furnished in the BHEL prescribed format as detailed in clause 19.	Yes / No
5	Warranty / Guarantee: (a) BHEL Requirement (b) Deviation if any Please specify Note: Refer clause 20.	(a)Acceptable / Not acceptable (b)
6	Terms of delivery: (a) F.O.B international Airport/Seaport. Indicate name of International Airport/Seaport (b) Deviation if any Please specify Note: Ref. clause 21	(a)Acceptable / Not acceptable (b)
7	Delivery Quoted: Indicate number of weeks from the date of issue of Purchase order Note: Refer Cl 22	Weeks
8	Validity: (a) Quotation should remain valid for a period of 90 days from the due date (b) Deviation if any Please specify	(a) Acceptable / Not acceptable (b)
9	Bank charges (If applicable): (a) Bank charges within India is to BHEL account and outside India is to Supplier's account (b) Deviation if any Please specify	(a) Acceptable / Not acceptable (b)
10	Weight and Dimension of consignment with packing	To be enclosed



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ANNEXURE - B

TECHNICAL BID (TO BE ENCLOSED WITH TECHNO-COMMERCIAL BID)

(For Indigenous Purchase Orders)

SI.	Particulars	Bidder's confirmation
No.		
1	Price basis: Firm i.e., from the date of PO to completion of contarct Note: Refer cl 1 b (ii) (Price variation not acceptable)	Acceptable / Not acceptable
2	Excise duty: If applicable indicate %.	Applicable / Not applicable ED:%
3	Sale tax: If applicable indicate %	Applicable / Not applicable (a) VAT% (b) CST% against form C
4	Payment terms: (a) 90 % basic payment + 100% taxes, duties, freight & insurance charges with 30 days credit & balance 10% against submission of PBG.	(a) Acceptable / Not acceptable (b)
	(b) Deviation if any please specify Note: Note: Refer clause 16	
5	BHEL's penalty clause: (a) Delay in delivery as per PO delivery date will result in penalty of 0.5 % per week and part thereof subject to maximum of 10% on the value of the items not supplier/delayed. (b) Deviation if any Please specify Note: Refer clause 18	(a) Acceptable / Not acceptable (b)
6	Performance Bank guarantee (PBG): PBG for 10% of the basic material cost shall be furnished in the BHEL prescribed format Note: Refer clause 19	Yes / No
7	Warranty / Guarantee: (a) BHEL Requirement (b) Deviation if any Please specify Note: Refer clause 20.	(a)Acceptable / Not acceptable (b)
8	Terms of delivery: (a) FOR EDN / BHEL, Bangalore (Free delivery to EDN/BHEL Bangalore) (b) Deviation if any Please specify Note: Refer clause 21	(a)Acceptable / Not acceptable (b)
9	Delivery Quoted: Indicate number of weeks from the date of issue of Purchase order Note: Refer Cl 22	Weeks
10	Validity: (a) Quotation should remain valid for a period of 90 days from the due date (b) Deviation if any Please specify	(a) Acceptable / Not acceptable (b)
11	Weight and Dimension of consignment with packing	To be enclosed.



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ANNEXURE - C

A . LIST OF INTERNATIONAL AIRPORTS

SI. No	Country	Air Ports			
1	Austria	Vienna, Linz, Graz			
2	Australia	Sydney, Melbourne, Perth			
3	Belgium	Antwerp, Brussels			
4	Canada	Toronto, Montreal			
5	China	Shangai			
6	Cyprus	Lamaca			
7	Czech Republic	Prague (Via Frankfurt)			
8	Denmark	Copenhagen			
9	Egypt	Cairo			
10	Finland	Helsinki			
11	France	Paris (Rossy), Lyon			
12	Germany	Darmstadt, Manihiem, Nurnberg, Hamburg, Stutttgart, Munich, Koln, Dusseldorf & Hannover, Frankfurt, Berlin			
13	Hongkong	Hongkong			
14	Italy	Rome, Milan, Turin, Bologna, Florence			
15	Ireland	Dublin			
16	Isrel	Telaviv			
17	Japan	Tokyo, Osaka			
18	Malaysia	Kaulalampur, Penang			
19	Neatherlands	Amsterdam, Rotterdam			
20	Newzealand	Auckland			
21	Norway	Oslo			
22	Oman	Muscat			
23	Philiphines	Manila			
24	Romania	Bucharest			
25	Russia	Moscow			
26	Saudi Arabia	Riyad			
27	Singapore	Singapore			
28	Slovakia	Bartislowa			
29	South Africa	Johannesburg, Durban			
30	South korea	Kimpo			
31	Spain	Barcelona			
32	Sweden	Stockholm, Gothenburg, Milano			
33	Switzerland	Basle, Zurich, Geneva			
34	Taiwan	Taipei			
35	U.A.E.	Dubai			
36	U.K.	Landon (Heathrow), Newcastle, Oxford, Cheltham, Bristol,			
		Wellingborough, Birmingham, East Midland, Manchester, Leeds, Glasgow.			
37	U.S.A.	Newyork, Chicago, Sanfrancisco, Los Angeles, Atlanta			
38	Ukraine	Kiev			



B. INTERNATIONAL SEAPORTS						
SECTOR	LOAD PORT	SECTOR	LOAD PORT			
	Fxlixstowe		Kobe			
	Le Harve	1	Yokohama			
	Rotterdam		Nagoya			
	Antwerp		Tokyo			
	Hamburg		Osaka			
	Genoa		PortKlang			
	Gothenburg	_	Singapore			
EUDADE /	Bilbao	JAPAN /	Hongkong			
EUROPE / SCOTLAND /	Bremen	FAR EAST /	Busan			
AFRICA	Algeciras	CHINA / S.KOREA SECTORS	Masan			
SECTOR	Barcelona		Shanghai			
	Cadiz		Yawata			
	La Spezia		Quingdao			
	Venice		Yantai			
	St.Potersbug		Dalian			
	Thamesport	-	Tianjin			
	Durban					
	Dundee					
BLACK SEA & MED PORTS /	Odessa		Dubai / Rashid Port			
RUSSIA /	IIIy Cheivsk	MIDDLE	Jebel Ali			
CZECH /	Helsinki	EAST	Oman			
POLAND / FINLAND /	HEISHIKI	SECTORS	Oman			
UKRAINE	Gdinya					





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ANNEXURE-D

EDN/BHEL APPROVED TRANSPORTERS FOR INLAND ROAD TRANSPORTATION

- 1. M/s Awagaman Road Carriers Itd., Bangalore. (AWG)
- 2. M/s Delhi Assam Roadways corporation ltd., Bangalore. (DRL)
- 3. M/s Indo Arya Central transport ltd., Bangalore. (IACT)
- 4. M/s Prakash parcel Services, Bangalore. (PPS)
- 5. M/s Road Carrier of India, Bangalore. (RCI)
- 6. M/s Union Roadways ltd., Bangalore. (URL)
- 7. Economic Transport Organisation Limited (ETO)
- 8. Precious Carrying Corporation Limited . (PCC)



ANNEXURE-E

PERFORMANCE BANK GUARANTEE (FOR FOREIGN PURCHASE ORDERS)

BANK NAME AND ADDRESS

Bharat Heavy Electricals Limited (BHEL), Electronics Division, PB No. 2606, Mysore Road, BANGALORE- 560 026 INDIA

Dear Sir,

Ref: CONTRACT PERFORMANCE GUARANTEE.

WI	HEREAS you h	ave en	tered into a	contract referer	nce No PO N	O		with M/s
	<u> </u>			 -	having	its	registered	office
at_			f	for the supply of				as
de	tailed in your	purcha	se order No	O	V	vhich is h	ereinafter refe	rred to as
ïτn	e said contrac	t" and	WHEREAS	> IVI/S				
		produ	ice a Bank	Guarantee for 1	0% (Ten Pe	rcent) of	the conf	tract price
am	nounting		to				(
				secure its obliga				
				he performance				•
eq	uipment	SU	ipplied,	We				Bank
,	do wtolko	٠ ما	au la ra la fa a	hereby	expressiy,	ırrevoca	ibly and unr	
un M/s	dertake ar	ıa	guarantee	as prii	ncipai or	Digois	on beh	
	S U E I \ doolore	o to 110	in writing t	that in that M/s	the event	Dilarai	neavy Electri	cais Liu.
(D.	n.E.L.) ueciale	ordina	to the con	tractual obligatio	on of the said	Loontract	to pay you or	ot fullilled
				/ Electricals Ltd.				
				India an			•	
20	oo, bangan	, i c 500	020,	maia an	amount	Oi		subject to
as	may be determ	ined be	elow:				/	oubjoor to
	•							
1)	Notwithstandir	ng any	right M/s.	any			may hav	e directly
,	against	you	or	any	disputes	raise	ed by	M/s
					·	Your writ	ten demand	shall be
	conclusive evi	dence		epayment is due				
	be binding on	us.						
2)				r released fror		ertaking	and Guarante	e by any
	arrangements, variations made between you and M/s.							
	with or without our consent and Knowledge or by any alterations in the obligations of M/s.							
	by any forbearance whether as to payment, time, performance							
	or otherwise.							
٥,	T I.	, .		P. L. (2) (1			6 (1)	.
3)				ilid until the end				se of the
	warranty perio	a or un	itii the same	e is reported by E	SHEL TO US W	nicnever is	s earlier.	

4) We agree and undertake not to revoke this guarantee during its validity unless discharged in

writing by you subject to the provision of clause (7) below.





(3)

Do not enclose with Bank document.

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,	discharged by any change in the constitution of the Bank or M/s.						
6)	This guarantee shall be governed by and constructed in accordance with the Laws of India.						
	At any time Bank may render this guarantee null and void by paying to Bharat Heavy Electricals Ltd. the full amount being (in words)						
	For and on behalf of Bank by its Authorised Signatory						
Not	e:						
(1)	To be executed in INR 100 Non-Judicial stamp paper by any authorized Indian Bank.						
(2)	To be submitted directly by banker to concerned executive in purchase dept., Please give BHEL address to banker.						



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ANNEXURE - F

PERFORMANCE BANK GUARANTEE (FOR INDEGENOUS PURCHASE ORDERS)

THI	S D	EED											day of under the
tran	sfer o	of und	ct 195 dertal	56/Nati kings)	ionalised Act cons	Bank co tituted u	onstitu Inder t	ted unde he State	r the E Bank	Banking of India	Compa Act / S	inies (acqı Subsidiary	uisition and Banks Act, d herein by
its Sri	Brar	nch	Mana	ager 	/ autho (H	rised r Iereinaft	eprese er call	entative ed 'guara	Sri. antor '	which t	term sha	all mean a	and include
its s	ucce	ssors	and	assign	ıs)								
				IN FA	VOUR O	F BHAF	RAT HI	EAVY EL	ECTR	ICALS	LIMITE)	
and	its E	lectro	nics	Divisio		egistered ore road	d office d, Ban	e at BHE galore-26	Ĺ Hou	ise at S	iri Fort	, New Del	under the lhi-100 049 'Company'
Whe	ereas		th	е	compa	any	ha	S	place			orde	
inclu	(State the name of the company / firm and its address) (hereinafter referred to as the 'Supplier' which term shall mean and include its liquidators, successors and assign) for the supply of system under order / Contract NoDt					II mean and							
					plier has a ne terms s						arryout t	the works	as detailed
rend satis / co Gua whice	dered sfied ntrac irante ch ca	unde with t t betwee for se the	being er the he m ween the s e cor	the 1 said of the chan the chan said sumpany	10% of the control of	he value ntract be anties a and the s eed to m (e of the etweer nd the supplemake p. %) of	ne goods the sup performation has be in factorial. the value	s suppopular ance so een cavour to the of the	olied / \ and the standard duly fulf of the d supplie e goods	Norks p compar stipulated to stipulate the stipulated to stipulated the stipulated to stipulated the stipulated to stipulated the stipulated th	performed by, till the cated in the acept again by by repute said sum and / Works	of Rupees / Services company is e said order nst a Bank ed Bank, in of Rupees s performed
/ Se Gua and	ervice ranto conc	es re or has litions	ndere at the state	ed und ne requ ed beld	der the uest of thow:	agreem e suppl	ent beier, ag	etween t reed to fo	he su urnish	ipplier this Gu	and the arantee	e compan subject to	ny and the o the terms
					esses i ants With					oove sa	id agree	∍ment, the	e guarantor
•		in re	_	•							spect of	f the paym (in	or shall be nents to the words) ny loss or
		_			r suffered Agreeme	•		, ,	eason	s of an			erms of the

2) The Guarantor hereby undertakes to pay the amounts due and payable under this guarantee without any demur, merely on demand from the company intimating that the amount claimed is due by way of loss or damage caused to or suffered or would be caused or suffered by the supplier of any terms contained in the said order / contract. Any such demand made on the guarantor shall be conclusive as regards the amount due and payable by the Guarantor

irrespective of the fact whether the Contractor / supplier admits or denies.



- 3) The Guarantor further agrees that the agreement herein contained shall remain in force and effect till all the supplies to be made / Works to be performed / Services to be rendered under the said order / contract / agreement are completed to the entire satisfaction of the company or till company certifies that the terms and conditions of the said order / contract / agreement have been fully and properly carried out by the said supplier and accordingly discharges the Guarantee. Unless a demand or claim under this guarantee is made on the guarantor in writing on or before the expiry of claim period indicated in clause 6 below , the guarantor shall be discharged from all the liability under this guarantee thereafter.
- 4) The guarantor further agrees with the company that the company shall have the fullest liberty without the consent of the guarantor and without effecting in any manner the obligations of the guarantor hereunder to vary any of the terms of the said order / contract / agreement or extend the time of performance by the said supplier from time to time or refrain from exercising the power exercisable by the company against the said supplier or to forebear or omit to enforce any of the terms and conditions relating to the said order / contract / agreement, and the guarantor shall not be relieved of its liability in whole or in part , by reason of any act, commission or forbearance on the part of the company or by reason of any such variation, or extension being granted to the said supplier or by reason of any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving the guarantor.
- 5) The guarantor undertakes not to revoke this guarantee during its currency except with the previous consent of the company in writing.

6)	Notwithstanding anything	herein above	contained,	the liability of	of the guara	antor u	ınder t	hese
	presents is restricted to F	₹s		. The guarar	ntee shall l	oe in f	orce t	ill its
	expiry on	unless a	demand is	made on the	guarantor	within :	SIX mo	onths
	from the date of expiry, al	I the liability of	the guaran	itor under this	guarantee	shalls	stand	fully
	discharged. The decision of	f the claimant	in regard to	breach of co	ntract is fin	al and	bindir	ıg on
	the Bank.		_					_

IN WITNESS whereof, the guarantor, acting through it authorised representative has executed this deed of Guarantee on the day, month and year first above written.

(Seal of the Bank to be affixed)

WITNESS

1.

2.



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ANNEXURE - G

BHEL MEMBER BANKS (CONSORTIUM BANKS)

PBG SHALL BE ISSUED FROM THE FOLLOWING BANKS ONLY

State Bank of India	The Hongkong and Shanghai Banking Corporation Ltd
ABN AMRO Bank N.V.	ICICI Bank Ltd
Bank of Baroda	IDBI Ltd.
Canara Bank	Punjab National Bank
CITI Bank N.A.	Standard Chartered Bank
Corporation bank	State Bank of Travancore
Deutsche Bank AG	State Bank of Hyderabad
HDFC Bank Ltd.	Syndicate Bank
Indian Bank	Oriental Bank of Commerce
Kotak Mahindra Bank Itd	Central bank of India
UCO bank	The Federal bank Limited