



# BHARAT HEAVY ELECTRICALS LIMITED

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

PHONE :2577645  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: srchandran@bheltry.co.in  
Web:

429-002/A

	<b>Enquiry No</b> 2681400018 - 79	<b>Enquiry Date</b> 12.06.2014	<b>Due Date for Quotation</b> 12.07.2014
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order. <u>Bid should be submitted in Two Parts. 1. Techno-commercial Bid (Part-I) and 2. Price Bid (Part-II) in a separate sealed cover and both the covers must be placed in a Third Cover and Sealed. Our Enquiry No., Enq. date &amp; Enq. Due date must be written on all Three covers.</u>			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	Replacing the existing Burny5 CNC system, DC servo motors for axis, drives, contactor logic control panel for machine operation and operator panel with new Burny10 LCD + CNC system, AC servo motors for "X" and "Y" axis movement with gear box, suitable control panel for AC drives, CNC, PLC and associated components along with operator panel. CNC RETROFITTING OF SOITAAB CNC PROFILE GAS and PLASMA CUTTING MACHINE WITH AC SERVO MOTORS FOR AXIS MOVEMENT OF X and Y AND DRIVE PANEL Machine Location: Bay-1B / Building-1 (Loc. No: 2810-2856). Qualifiing Criteria as per Annexure-I. BHEL Specifications as per Annexure-II.	NO	1.000	1.00	01.10.14

### General Note:

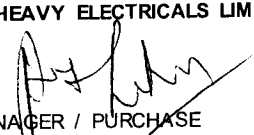
1. Please submit your detailed offer in two part bid system i.e Part-I. Technical bid+ Checklist (Annexure-A) + unpriced bid with indicating taxes & duties (Annexure-B) in a sealed cover super scribing on the cover as "TECHNICAL & COMMERCIAL BID / PART-II"  
Part-II. Priced offer in another separate sealed cover super scribing on the cover as Part-II

Both the covers shall be duly super-scribed with tender reference and due date of opening. These covers shall be put in a single cover duly super-scribed with tender reference and due date of opening and addressed to us.

2. Point-to-point confirmation to BHEL's specification and commercial terms & conditions shall be provided Annexure-A. All the Annexures should be filled and submitted along with the technical bid (no row shall be left blank), else your offer is liable for rejection.

3. Offers with validity of less than 120 days and non-acceptance of LD, RP clause, PBG & Payment terms, will lead to rejection of submitted offer.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**  
  
MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully,



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THIRUCHIRAPALLI - 620014  
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2681400018 / 12.06.2014

4. If the due date of tender opening happens to be a holiday, the tenders will be opened on the next working day.
5. All clarifications may be sought at least ten days prior to tender due date, from the undersigned with due written request.
6. Order shall be placed on single vendor on cumulative L1 basis
7. BHEL reserves the right to go for a reverse auction (RA) instead of opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions covering RA are given in commercial terms and conditions (Annexure-A/Point no.16)
8. Vendors are requested to avoid the loose or spiral bound bid documents
9. Corrigendum if any, with respect to this tender will be hosted only in the website <http://www.bhel.com> or <http://tenders.gov.in>. You are requested to visit the website regularly for updates.
10. BHEL will consider MSME vendor as per Government guidelines.

**List of Attachments:**

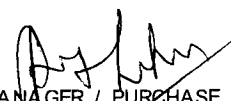
1. Qualifying Criteria Annexure-I
2. Technical Specification Annexure-II
3. Commercial Terms and Conditions - Annexure-A
4. Price Format-Annexure-B
5. CA Certificate for MSE Vendors-Annexure-III

**Enclosures:**

"LD clause has to be confirmed without fail."  
"Payment to vendors will be made only thro E-Payment mode"

The offers should reach us 30 minutes before the time of opening of tenders.  
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

  
MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully,

# **Annexure I**

## **PART A**

### **RETROFITTING OF HEAVY DUTY CNC PLASMA & FLAME CUTTINGMACHINE**

#### **SECTION – I : QUALIFYING CRITERIA**

The BIDDER has to compulsorily meet the Qualifying Criteria indicated in Section 1 to get qualified. Otherwise the technical offer will not be considered.

<b>S. No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR's RESPONSE</b>
1.1	<p>The BIDDER / VENDOR shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacture &amp; Supply or Retrofitting of "Heavy Duty CNC PLASMA FLAME CUTTING MACHINE". Vendor shall indicate the actual no. of years of experience in the field.</p> <p>Proof for Establishment of company and previous Purchase order copies shall be provided.</p>	
1.2	<p>Only those vendors should quote, who have supplier or retrofitted in the past Five years (as on the original date of opening of Tender) at least ONE 'CNC PLASMA CUTTING MACHINE' having all the following features:</p> <ol style="list-style-type: none"><li>1. 300mm thick plate cutting capability with minimum two torches cutting at a time.</li><li>2. CNC system using latest software containing all flame cutting operations</li><li>3. Working area of the machine shall not be less than 4000 x 10000mm</li></ol> <p>The referred machine is presently working satisfactorily for more than one year after commissioning (as on the original date of opening of Tender). The name and contact addresses of the customers to whom the machine has been supplied has to be furnished with details.</p>	
1.3	<p>Vendor has to submit at least ONE PERFORMANCE CERTIFICATE from their customers in India for satisfactory performance of the machine as given under Clause 1.2 above, for a minimum period of one year (as on the original date of opening of Tender). The original performance certificate may be returned after verification by BHEL, if required.</p> <p>For obtaining the Performance certificate, a suggestive format is provided.</p>	
1.4	<p>BHEL reserves the right to verify the information provided by the Vendor for the referred machine at their referred customer's works. It shall be the responsibility of the vendor to facilitate visit of BHEL's team at their referred customer works .The Travel and Boarding expenses for BHEL Personnel shall be borne by BHEL. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.</p>	

## **SECTION – II**

The BIDDER / VENDOR are requested to provide the following information:-

<b>S. No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR'S RESPONSE</b>
2.1	The BIDDER / VENDOR to furnish Reference List of Customers, with complete address, details of contact person, where CNC FLAME CUTTING MACHINE has been supplied or retrofitting in the past.	
2.2	Specify details of CNC FLAME CUTTING MACHINE supplied or retrofitting in other units of BHEL, if any (Year of Commissioning, parameters etc.)	
2.3	Details on SERVICE-AFTER-SALES Set-up in India including the Address of Agents / Service Centres in India.	
2.4	Any Additional data to supplement the manufacturing capability of the BIDDER for the subject equipment.	

## **SECTION – III**

The BIDDER to note:

<b>S. No.</b>	<b>PARTICULARS</b>	<b>VENDOR'S RESPONSE</b>
3.1	The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B] 2. Commercial offer & Price Bid.	
3.2	The Technical Offer shall contain a comparative statement of Technical <b>Specifications demanded by BHEL</b> and <b>Offer Details submitted by the Bidder</b> , against each clause.	
3.3	The Technical Offer shall be supported by copies of product Catalogues, Data Sheets and technical details of Bought-Out-Items.	
3.4	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation.	

**SECTION – IV - Suggestive** Format of Performance Certificate:

The Performance certificate should be produced on Customer's Letter Head and submitted along with the offer.

**PERFORMANCE CERTIFICATE**

1.0	Machine Supplied by(Manufacturer's name)	
2.0	Make & Model number of the Machine	
3.0	Month & Year of Installation	
4.0	Application for which m/c is used	
5.0	<b>Machine Details</b>	
5.1	Working area	
5.2	Plate thickness cut by the machine	
5.3	CNC System & Model	
5.4	Drives and motors, make & Model	
5.5	Plasma Source and system make & Model	
5.6	Software for CNC	
5.7	Level of accuracy	
6.0	Performance of the Machine	Not Satisfactory /Average /Good / Satisfactory (Strike off whichever is not applicable)
7.0	Performance of the Plasma System	Not Satisfactory /Average /Good / Satisfactory (Strike off whichever is not applicable)
8.0	After sales service	Not Satisfactory /Average /Good / Satisfactory (Strike off whichever is not applicable)
9.0	Any Other remarks	
	Date:	Signature & Seal of the Authority Issuing the Performance Certificate

**ANNEXURE-II****CNC RETROFITTING OF SOITAAB CNC PROFILE GAS & PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.**

Replacing the existing Burny5 CNC system, DC servo motors for axis, drives, contactor logic control panel for machine operation and operator panel with new Plasma cutting system, CNC, AC servo motors for "X" & "Y" axis movement with gear box & Racks, suitable control panel for AC drives, CNC, PLC and associated components along with operator panel at Bay-1B / Building-1 (Loc. No: 2810-2856)

S.No.	BHEL SPECIFICATIONS	BIDDER'S TECHNICAL OFFER (with Complete Details)
1.0.0	<b>Existing condition &amp; Description:</b>	
1.1.0	Soitaab is a CNC profile gas and plasma cutting machine, supplied by M/s. SOITAAB, ITALY, is used for production of components pertaining to power boilers and Advanced Technical Products.	
1.2.0	The machine has 2nos of Oxy acetylene Torch with motorized height adjustment and one no. of Plasma torch with motorized height adjustment are mounted on the 4500mm length isostatic rigid frame work of steel box girder construction (cross beam) which is movable on the 15000mm long guide rails on both sides. The cross beam is move longitudinal direction (Y-axis)on rails by rack & pinion which are mounted on the sides of cross beam at both rails in master and slave mechanism. The cross transverse (X-axis) movement by rope drive mechanism and the power transmitted by DC servo motor with gear box mounted on the cross rail. The Burny5 CNC system with axis drive control panel, operator control panel and plasma cutting control are mounted on the one end of cross beam front. Thermal dynamics corporation make PAK45 plasma cutting power source, machine cutting system with control panel for nonferrous plate cutting and encoder has been installed for position measurement and feedback. Incoming supply cables, oxy acetylene gas hoses from switch fuse unit to m/c and torch control cable with gas hoses from m/c panel to torches are movable by trialing arrangement on "T" type slotted channel for long and cross axis. The power cable, control cable, water & gas hoses from plasma power source to plasma torch is routed thro' the drag chain for long axis movement and trialing arrangement on the "T" type slotted channel for cross axis.	
1.3.0	Under this project it is proposed to replace the existing Racks, DC servo motors, drives for axis with new AC servo motors with AC drives for independent axis movement (X & Y). Necessary gear boxes with pinion for 'X & Y' movement to be provided. Existing Burny5 CNC system, machine control and operator panel shall be replaced with Latest CNC system and window based 15" touch panel. A new control panel shall accommodate the proposed CNC system, PLC, drives and associated components along with operator panel and AC unit for CNC system and drive panel are to be supplied.	
1.4.0	The following are the details of Technical description of the M/c.	
1.4.1	Track width: 5000mm,	
1.4.2	Useful cutting width: 4000mm,	
1.4.3	Total length of rails: 16000mm,	
1.4.4	Useful cutting length: 13500mm,	
1.4.5	Oxy. Acetylene Cutting Torches: Injunction type,	
1.4.6	Cutting capacity: 300mm, Plasma cuttinc capacity : 75mm.	
1.4.7	Speeds (Dual side rack & pinion drive):	
1.4.8	Positioning speed: 10000mm/min	
1.4.9	Cutting speed: From 100 to 7500mm/min,	
1.4.10	Marking speed: 10000mm/min,	
1.4.11	Plasma cutting Torch model: DCM-6B, Thermal dynamics make,	
1.4.12	Plasma cutting power source: PAK45, (Thermal dynamics make), O/P: 400Amps, DC	

**ANNEXURE-II CNC RETROFITTING OF SOITAAB CNC PROFILE GAS & PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.**

1.5.0	The following are the details of the motor & drive in the existing machine:	
1.5.1	DC servo motor for X-axis (Cross axis). Type: DCM 3D-30/06-A2,-1no RPM: 3000 Current: 10Amps, Torque: 1.6Nm, Kt: 0.16Nm, Tacho: 10V/1000rpm	
1.5.2	DC servo motor for Y-axis (Long axis). Type: DCM 3D-30/06-A2, -2nos for master & Slave. RPM: 3000 Current: 10Amps, Torque: 1.6Nm, Kt: 0.16Nm, Tacho: 10V/1000rpm.	
1.5.3	DC Drive: Make: M/s. Control Technic Type: Mini mastro DCD 60 X 14/28.	
1.5.4	Oxy-fuel Torch suspension unit with (height up & down) motor:-2nos ( Vertical Height Adjustment - 300mm) DC shunt motor: Type: KM80-60-Z51-2B, Supply: 220VDC, 0.5Amps, 85watts, 4000rpm, Err: 220Vdc, 0.07amps.	
1.5.5	Plasma Torch suspension unit with (height up & down) motor:-1no. ( Vertical Height Adjustment - 300mm) AC induction motor, 3phase, 380volts, 0.12amps, 2850rpm, 50Hz, 22watts.	
1.5.6	Plasma cutting power source: Input: 3phase,415volts, 50Hz. Output: 400amps, Dc straight polarity, (Infinite variable between 100A and 400A for high range, 50 and 150A for low range), Model: PAK45, Cutting capacity: 3inches. Make: M/s Thermal dynamics corporation, USA.	
1.5.7	CNC system: Burny 5.	
<b>2.0.0</b>	<b>Item 10 - SCOPE OF SUPPLY:</b>	
2.1.0	Supply of Latest CNC and window based 15" touch panel system, machine control panel including necessary control elements in the place of existing Burny5 CNC system suitable to operator convenient with Hardware specification as follows: (Minimum requirement)	
2.1.1	CNC Controller: Latest model, suitable for Oxy-flame cutting & Plasma Cutting applications.	
2.1.2	Single control unit on operator panel for controlling torch stations (2nos of Oxy. Acetylene & 1 no of Plasma)	
2.1.3	Make: Latest model Burny/Fanuc/Siemens/ESAB/Messer/Hypertherm/Soitaab/Farley with service & spare backup in India atleast for a period of 10 years after supply of machine.	
2.1.4	Details of Standard features.	List to be specified

**ANNEXURE-II CNC RETROFITTING OF SOITAAB CNC PROFILE GAS & PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.**

2.1.5	All software changes in cutting software should be supported free of cost for 10 years if there is any operating platform changes.	
2.1.6	RS 232, Ethernet, USB ports for communication.	
2.1.7	15 inch LCD, Touchscreen Color display.	
2.1.8	Minimum 80GB Hard disc and CD/DVD RW drive.	
2.1.9	2 GHz or higher version processor.	
2.1.10	Minimum 512 MB RAM memory.	
2.1.11	12 interphase signal lines for cutting and motion control and additional I/O points.	
2.1.12	Industrial grade Enclosure that minimizes RFI / EMI interference.	
2.1.13	Two axis drive outputs and incremental Encoder inputs for X-axis, master & slave of Y-axis and all will be optically isolated.	
2.2.0	Supply of 3nos of AC SERVO MOTORS of suitable torque rating and feed / speed to match the performance of the existing DC servo motor for cross movement (X axis) and Longitudinal movement (Master & slave for Y axis). These Three independent AC servo motors with new gear box, machined brackets to mount the new AC servo motor & gear box with rail and pinion suitable to the rack mounted on dual rail shall replace the present DC servomotor with gear box and pinion.	
2.2.1	AC Servo Motors and Drives of suitable rating with necessary chokes and transformers including: i) Longitudinal double side drives, ii) Transverse drive & control	
2.2.2	Make of all motors and drives : Siemens/ Fanuc/ Yasakawa / AB / Mitsubishi /Bosch-Rexroth/ Panasonic/INDRAMAT / ABB / YASHKAWA / FUJI or Same make of CNC. (Details of model, make, type etc. to be specified)	
2.2.3	The longitudinal travel of bridge on a precision track should be through servo drives on both sides of bridge having electronic synchronization control to eliminate any skewing of the machine.	
2.3.0	Supply of new CONTROL PANEL with AC digital drives suitable for the AC servo motors to be supplied, PLC system that includes required I/O modules and other subsystems to replace the existing relay and contactor based control logic without modifying present functionality of the working machine. The proposed new CONTROL PANEL shall be supplied as detailed below:	
2.3.1	Control panel of a standard RITTAL or equivalent make shall accommodate the proposed new AC drives and their accessories.	
2.3.2	A new PLC based system to replace existing relay / contactor based machine controls.	
2.3.3	All the control elements, switchgears, contactors, terminal blocks, power supply unit, control and power wirings shall be accommodated in the new panel	
2.3.4	Control panel shall include new control elements for the existing motors.	
2.3.5	The control panel should be of suitable size to accommodate all the above items	
2.3.6	There should not be any component /elements mounted on the base, doors and side covering sheets of the control panel.	
2.3.7	Fluorescent tube light fittings or CFL fittings shall be provided inside the panels for sufficient illumination during maintenance.	
2.3.8	A 230volt, 5 amps, 3 pin, flush type switched wall socket shall be provided in the panel.	
2.4.0	Supply of new OPERATOR PANEL for 2nos of Oxy. Acetylene & 1 no of Plasma torch height control with speed adjusting potentiometer, Heating gas, heating oxygen & cutting oxygen on, off control with Auto / manual and plasma cutting on & Off control with Auto / manual mode and emergency push button. The operator panel shall be a standard Burny make. The operator panel for auxiliary commands consists of followig items:-	
2.4.1	Manual /Auto torch suspension switch, spy-lamp. (one for each suspension),	
2.4.2	ON/OFF preheat switch,	
2.4.3	Three position switch for torch suspensions up and down,	

**ANNEXURE-II****CNC RETROFITTING OF SOITAAB CNC PROFILE GAS & PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.**

2.4.4	Preheat gas main switch,	
2.4.5	Cutting oxygen main switch (one for each suspension),	
2.4.6	Preheat oxygen timer,	
2.4.7	Preheat oxygen light button,	
2.4.8	Preheat oxygen stop button,	
2.4.9	Cutting oxygen ON button,	
2.4.10	Cutting cycle STOP button,	
2.4.11	Three position switch for all torches up,	
2.4.12	Speed adjusting potentiometer,	
2.4.13	Manual /Auto auxiliary function enabling switch,	
2.4.14	NC on button,	
2.4.15	Machine ON light button,	
2.4.16	Machine OFF light button,	
2.4.17	Emergency OFF button.	
2.5.0	Supply of gas control panel with pressure regulator and indicator gauges for heating gas, heating oxygen and cutting oxygen and mounted on the top of the CNC system panel which will be easy accessibility to operator. The gas control panel consist of following items:	
2.5.1	Pressure regulator for cutting oxygen with 0-6bar manometer,	
2.5.2	Pressure regulator for pre-heating oxygen with 0-6bar manometer,	
2.5.3	Pressure regulator for flammable gas with 0-3bar manometer,	
2.5.4	Two high pressure electro valves, one for pre-heating oxygen and another for heating gas.	
2.6.0	Supply of PANEL AC UNIT of suitable capacity that shall be mounted on the side of the control panel for cooling the CNC system, power supply module, drive module, PLC and associated components. The selection of AC unit shall be capable of sufficient CUT off time when compared to the ON time	
2.7.0	Supply of suitable capacity of 24volt regulated power supply unit for CNC, PLC and I/Os and separate 24volt power supply unit for gas valve solenoids and controls.	
2.8.0	Supply of new gear boxes for X-axis drive 1no and Y- axis 2nos for master and slave with required machined mechanical mounting brackets to fix the new motor with gear box on the m/c with 3nos of pinion and 45metre length of rack identical to the existing rack available on the m/c for axis drive power transmission. Note: The Rack drawing shall be given for teeth pitch, height and material. Required fasteners to be required to fix the rack on the rail shall be supplier scope.	
2.9.0	Supply of BEARINGS, GEAR BOXES, BELTS, COUPLINGS, ORINGS, SEALS and FASTENERS required for mechanical modifications in the machine.	
2.10.0	Supply of new valves with solenoids suitable to the mounting existing pipe lines at input of individual torch for heating gas, heating and cutting oxygen and cutting oxygen vent.	
2.11.0	Supply of 3nos Torch suspension unit full assembly (same make of CNC), to fix the metal cutting torch and nozzle with torch up / down motor, Mechanical arrangements and end limit switches for stroke limit of all 3 troches up & down movements. Vertical height adjustment of the torch min. 325mm. Suitable adjusted to easily cut 300mm thick plates	

**ANNEXURE-II**

**CNC RETROFITTING OF SOITAAB CNC PROFILE GAS & PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.**

2.12.0	<b>Supply of IGBT based gas plasma cutting power source</b> of output current 400Amps DC Thermal dynamics corporation, USA make, model PAK45 or equivalent machine cutting system with service & spare backup in India atleast for a period of 10 years after supply of machine. The plasma power source and cutting system consist of:	
2.12.1	Input supply: 3phase (3wire system and no neutral), 415voltsAC +/-10%, 50Hz.	
2.12.2	Output: 400Amps, infinite variable between 100A and 400amps high range, 50A and 150amps in low range, straight polarity.	
2.12.3	Features: Starting & stopping the cutting arc, pilot arc ignition, safety inter locks, closed loop coolant re-circulator to cool torch and 400amps power supply.	
2.12.4	Maximum thickness of plate cutting is 3inches (75mm) with clean cut edge without taper with continuous duty cycle.	
2.12.5	Offered make & model of the Plasma power source shall be same as in the Performance Certificate.	
2.13.0	<b>Materials of work pieces :</b>	
2.13.1	i) Carbon Steel and Low Alloy Steel	
2.13.2	ii) Stainless Steel and Non ferrous	
2.13.3	iii) Monel /Inconel Gladded Steel Plates	
2.14.0	Supply of Plasma cutting torch with 100 feet connecting leads, work cable with clamp, Motorized torch Suspension unit assembly for plasma machine cutting torch, torch height control, torch motor control cable, interface cable, gas supply hoses and spare parts kit.	
2.15.0	<b>The Remote control panel consist of:</b>	
2.15.1	a) Run / set / purge switch.	
2.15.2	b) Current control knob.	
2.15.3	c) High / low range switch.	
2.15.4	d) Start / stop buttons, Emergency off Button.	
2.15.5	e) Secondary gas / water shield switch and Hi-flow water shield switch.	
2.16.0	<b>Indicators on the panel:</b>	
2.16.1	a) M/c ready, AC & DC power on indication lights.	
2.16.2	b) Plasma & secondary gas pressure gauges.	
2.16.3	c) Torch cooling water pressure gauge.	
2.16.4	d) Ammeter 500Amps Dc for output current.	
2.17.0	<b>Safety interlocks:</b>	
2.17.1	a) Leads access door, b) Coolant, c) Plasma and d) Secondary gas pressure.	
2.18.0	Control circuit voltage will be 24volts.	
2.19.0	Supply of appropriate INTERFACE CABLES for power, control, feedback and signals as required for the axis controls. These cables are to be connected between motors and drives as well as between drives, operating pedestal panel. All these cables shall be standard ones with connectors at both the ends of each cable supplied by OEMs of CNC and drives.	
2.20.0	Supply of NEW CABLES for all other motors in place of old cables. Apart from the servo drives for axis and its subsystems, three number of torch suspension unit with motor available in the machine. Old cables for power, control, feedback and signal in the machine, as applicable for these motors, shall be replaced with new FRC (fire retardant) grade cables. PVC sheathed flexible metal hoses of appropriate capacity and sizes are to be used.	

## ANNEXURE-II

## CNC RETROFITTING OF SOITAAB CNC PROFILE GAS &amp; PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.

2.21.0	Supply of all CONTROL and INDICATING elements such as contactors, relays, limit switches, proximity switches, push buttons, selector switches, indicating lamps and suitable rating of Control transformer for Panel air conditioner unit, 24V power supply, contactor control etc., in the machine. The above old components shall be replaced with new ones on the machine and the proposed new panel. New cables shall be laid for these elements. Each and every element in the panel and field shall be provided with proper identification and all cables & wires shall be identified with number ferruel.	
2.22.0	Supply of ROTARY ENCODER with mechanical mounting brackets and couplings for X & Y axis.	
2.23.0	Supply of suitable size cable drag chain (45 / 150mm, length-10550mm) to accommodate the plasma torch leads 100feet, control wires and suitable to traverse length of 15000mm.	
2.24.0	<b>SAFETY ARRANGEMENTS</b> Following safety features in addition to other standard safety features should be provided on the machine:	
2.24.1	Machine shall 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 should be generated.	
2.24.2	3 stage Limit safety available on X and Y axis Geometric Soft Limits, Electrical Limit & Mechanical Limits via suitable methods. Andon light with alarm which will give beep signal when the machine is moving in rapid	
2.24.3	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 and for maintenance personnel .	
2.24.4	Emergency Switches at suitable locations as per International Norms should be provided.	
2.25.0	Supply of THREE sets of the following DOCUMENTS along with the system.	
2.25.1	a. Commissioning and troubleshooting manuals includes ladder diagram, parameter list and documents in English along with the system.	
2.25.2	b. Interface wiring drawings, circuit diagrams for the new panels, bought out items including part number.	
2.25.3	c. Detailed drawings, part dimension with part number including material shall be supplied for mechanical items like rack, pinion, machined brackets, gear boxes, coupling devices, connecting shaft which are to be supplied with the system.	
2.26.0	Supply of TWO sets of original MANUALS in the form of hard copy for Plasma system, CNC and Drives (as supplied by OEMS) for description, maintenance, parameter, operation and interface of CNC system and description, parameter, maintenance manuals for servo motors shall be supplied.	
2.27.0	Supply of ONE set of SOFT COPY in CD(s) for all the above documents.	
2.28.0	<b>GENERAL FEATURES AND CONDITIONS:</b>	
2.28.1	Before submitting offer the vendor shall visit BHEL shop to study the existing working machine, its functions and the quantum of work required for retrofitting.	
2.28.2	415V $\pm$ 10%, 50HZ $\pm$ 3%, 3 Phase AC (3 wire system with out neutral) Power Supply Source provided by BHEL at a single point near the machine. 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 the responsibility of vendor.	
2.28.3	Axis servo motors selected shall be of suitable torque and speed ratings to match the parameters of the existing axis DC motors respectively. The rating and type number of the motors selected shall be indicated in the offer and the technical leaflet showing the parameters and dimensional details shall be enclosed.	
2.28.4	PLC, I/O modules and Power supply units shall be M/s. Siemens / Allen Bradley / Omron / AB / ABB make only.	
2.28.5	The control panel shall be of Rittal or equivalent make. Panel AC unit shall be of Rittal, Avon or Advance Cooling System make.	

**ANNEXURE-II**

**CNC RETROFITTING OF SOITAAB CNC PROFILE GAS & PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.**

2.28.6	All the panels shall conform to the IS / BS/ EN / Indian electricity Regulations from safety aspects. The panels shall be of indoor and mounting on the m/c frame with IP 55 enclosure and made of 1.6mm/ 2mm sheet steel for the non-load bearing/ load bearing sheets with necessary MS angles/ sections includes the suitable size "EYE bolts for lifting. It shall undergo full degreasing, de-rusting, phosphating treatment process before painting with red oxide and two coats of Siemens gray / Apple green enamel paints outside and white enamel painting inside for better visibility.	
2.28.7	All control elements like contactor, relay, push buttons, MCB, MPCB, Proximity switches and limit switches shall be M/s. Siemens / L&T / Telemecanique / Technik only	
2.28.8	All the control and power wires shall be M/s. Igus or Lapp makes only. The colour of wires for control supply of 24VDC, 230VAC and power wiring of 3phase 415volt shall be used as per IS.	
2.28.9	All the control and power wiring in the panel shall be routed thro' proper sizes of cable ducts and from control panel to field elements shall be protected with suitable sizes of heavy duty or braided flexible metal hoses and sheet metal ducts.	
2.28.10	Make of gear boxes shall be of Elecon, Radicon, Shanti Gears, Crompton Greaves, Bonfiglioli or New Allenberry make. Belts shall be of Fenner, PIX, SKF, GATES, DUNLOP or GOOD YEAR make.	
2.28.11	The proposed electrical circuit diagram, component lay out, panel drawings with dimension, Bill of Materials, drawings and other details for mechanical items such as Rack, Pinion, machined bracket, gear boxes, coupling arrangements shall be submitted to BHEL officials for approval before starting manufacturing.	
2.28.12	Training shall be given for two persons on the maintenance aspects of CNC / PLC and drives at OEM's Training Centre or authorized training center and two persons on the production/Operation aspects at BHEL.	
2.28.13	The new panel, Motors, CNC system and Plasma cutting system shall be offered for inspection at supplier's works before dispatch.	
2.28.14	Before dismantling the existing wiring & drive, the vendor should check and record the performance of the m/c like i) Axis speed min & max, ii) cutting speed (max), iii) Accuracy and Quality of job in ferrous and SS material etc.	
2.28.15	The vendor shall prove the machine performance better than the previous performance level before retrofitting in all respects.	
2.28.16	The vendor shall give guarantee for trouble free operation for the period of one year after commissioning of the machine.	
2.28.17	The offer shall clearly indicate the list of material to be supplied under scope of supply and the list of activities to be carried out under scope of work with break up details.	
2.28.18	Integration of all the subsystems with the machine, commissioning of the new control panel and prove out of the machine is to be done, for which the cost of work is to be indicated in item (20) of this contract.	
2.28.19	Vendor is to submit the offer in TWO parts separately. Part-1: TECHNICAL BID having complete technical details, catalogues and point wise confirmation & deviations if any. Part-2: PRICE BID.	
3.0.0	<b>Item 20 - SCOPE OF WORK:</b>	
3.1.0	Removal of the existing Plasma power source, Burny 5 CNC system, Axis DC servo motors with gear box, drive & control panel, cabling, wiring etc. for DC servo motors, existing motor control panel with all control & power wiring and operator panel, 2nos of Torch suspension unit, model AR300 with gas hoses, control cables and Plasma torch with motorized suspension unit with 100feet leads and cable drag chain.	
3.2.0	Dismantling and removal of all existing rack on the 16000mm long rails for longitudinal movement in the machine and replacing them with new one to be supplied. The new rack and required fasteners for mounting the rack shall be scope of the supplier.	

**ANNEXURE-II CNC RETROFITTING OF SOITAAB CNC PROFILE GAS & PLASMA CUTTING MACHINE AT BAY 1B / BLDG1.**

3.3.0	Dismantling of rigid frame work of steel box girder for cross axis, to check the sliding surface and correct it by machining if required. Marking for machining, movement to the machine, assistance for setting and clamping shall be the scope of contractor. Machining will be arranged by BHEL free of cost.	
3.4.0	Mechanical overhauling for long & cross axis traverse mechanism and replacing the bearings and steel rope for cross axis. Required bearings and steel rope shall be supplied by BHEL at free of cost.	
3.5.0	Dismantling the "T" slot channel for trailing the incoming supply cable and gas hoses to the machine, cleaned it and correct the bent portion. Re fixing the same on the existing frame and ensure the smooth and free movement of trailing the cable with gas hoses after correction. Required length of gas hoses only supplied by BHEL at free of cost.	
3.6.0	Mounting the 2nos of new motorized torch suspension unit for oxy-acetylene cutting torches to be supplied and plasma torch with motorized suspension unit on the steel box girder for cross axis. Required length of Hoses shall be provided with trailing arrangement for heating gas, heating oxygen and cutting oxygen. Required length of hoses shall be supplied by BHEL at free of cost. The power cable, water & gas hoses, control cable for plasma torch shall be routed for cross axis movement shall be by trailing arrangement.	
3.7.0	Replacing of all the gas hoses as a new one on the m/c.	
3.8.0	Cleaning of mechanical items before assembly. Required cleaning materials like cotton waste, kerosene shall be issued by BHEL at free of cost.	
3.9.0	The material required for CNC system and other modification will be scope of supplier.	
3.10.0	Integration of all the subsystems with the machine.	
3.11.0	Commissioning of the new control panels including programming of CNC, PLC and drives to suit the present job conditions.	
3.12.0	Prove out of the machine - including verification of all functions of the machine, testing the machine without cutting and with cutting of min & max thickness of plates with min & required speeds for all types of gas cutting and plasma cutting jobs shall be performed, which are done before retrofitting.	
3.13.0	Painting of the machine after completing the retrofitting. Note: Required quantity of enamel paint will be supplied by BHEL at free of cost. Required tools like spary gun, painting brushes are the scope of supplier.	
3.14.0	Calibration:	
3.14.1	Necessary calibration shall be carried out as per standard for X & Y axis and required compensation shall be given to the CNC system and maintain the best positional accuracy. The detailed calibration report in duplicate with compensation values and m/c positional accuracy certification shall be submitted after calibration.	
3.15.0	Training the operators for programming and operation for different type of jobs and maintenance	
3.16.0	Necessary hand & power tools to be carried out the RC shall be under the scope of the vendor.	
3.17.0	Necessary crane facility shall be arranged by BHEL for dismantling, machining and assembling.	
3.18.0	The removed mechanical and electrical materials from machine shall be handed over to the concerned area maintenance in charge.	

**BHARAT HEAVY ELECTRICALS LIMITED TIRUCHIRAPALLI**  
**CAPITAL PURCHASE**

Annexure-A

**ACCEPTANCE OF COMMERCIAL TERMS AND CONDITIONS BY THE VENDORS.**

(This should be essentially filled in and sent along with the techno-commercial offer without fail. If this check list is not filled and submitted along with techno-commercial offer (Part I) or if the vendor does not confirm acceptance to the terms and conditions proposed herein, BHEL reserves the right to reject such offers)

**CHECK-LIST FOR VENDORS**

SI No	DESCRIPTION
1.	<p>The Bidders shall submit their offer in <b>TWO INNER ENVELOPES</b> as indicated below which shall be sealed in one outer envelope.</p> <ul style="list-style-type: none"> <li>❖ <b>Envelope I:</b> This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "<b>Part I - Technical and commercial bid</b>", indicating Enquiry No., Due Date and Address &amp; Reference of the Bidder.</li> <li>❖ <b>Envelope II:</b> This sealed envelope should contain <b>price details</b>. This envelope should be clearly marked "<b>Part II - Price bid</b>", indicating Enquiry No., Due Date and Address &amp; Reference of the Bidder. This part should contain the schedule of price particulars and must be co-related to the technical details provided in Part I.</li> </ul> <p>All the two envelopes (Part I&amp;II) shall be put in one cover, duly sealed, super scribing as "<b>Part I and Part II of Enquiry No., due date of opening</b>" and the address and reference of the Bidder. The offer received without the above guidelines, will not be considered for opening.</p> <p>The above offer should reach this office on or before the due date by 14.00 Hrs (IST). Late offers will not be considered. Tender should not be addressed to any Individual's name but only by designation to:</p> <p align="center"><b>DGM / CAPITAL PURCHASE / MFG  24 BUILDING, 4TH FLOOR  BHARAT HEAVY ELECTRICALS LIMITED  HIGH PRESSURE BOILER PLANT  TIRUCHIRAPALLI - 620 014  TAMIL NADU, INDIA</b></p> <p>Tenders should be free from <b>CORRECTIONS AND ERASURES</b>. Corrections if any, must be attested. All amounts shall be indicated both in words as well as in figures. In case of any difference between amount quoted in words and figures, amount quoted in words shall prevail.</p> <p>Offers should be in <b>ENGLISH</b> and accompanied by detailed technical literature, catalogue and detailed dimensional drawings in <b>ENGLISH</b> or otherwise, the offers will not be considered.</p>
2.	<p><b><u>OPENING OF TENDERS</u></b></p> <p>The Part I- Technical &amp; commercial bid would be opened on the Tender opening date.</p> <p>Part-II, Price bid of technically suitable Bidders alone would be opened after complete evaluation of Part-I. Hence the Bidders are required to submit their best competitive price in the price bid in a sealed cover (Part-II). In case of necessity BHEL reserves the right to go for a reverse auction (RA) instead of opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions covering RA are given in this Annexure- I (Point no.16).</p> <p>Date and time of Price Bid (Part-II) opening / RA conducting date shall be intimated to the technically and commercially acceptable bidders only. Clarifications if any required by BHEL for Technical evaluation would be sought from bidders before opening of Part II - Price Bid/ RA</p>
3.	<p><b><u>TAXES AND DUTIES :</u></b></p> <p>All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST &amp; TIN No / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties. Our TIN No. 33243560005, TNGST No. 3560005, CST. No. 239383 Dt. 11-06-1991 &amp; BHEL ECC No. AAACB4146PXM012, Service Tax Reg No (STC)- AAACB4146PST006. Assessment circle Tiruverambur.</p> <p><b>Cenvat credit &amp; VAT credit</b> (for Indian Bidders only): If any Excise Duty is payable, the chapter head / sub-head reference and the rate of the duty should be quoted. If the tenderer is availing <b>CENVAT</b> credit for his input materials, the effect of proforma credit should be passed on to the purchaser</p> <p><b>Income Tax applicable</b>  Any service charges payable towards supervision of E&amp;C, training, performance prove-out etc., will be released after deduction of Income Tax as per Indian Income Tax Act / as per the Govt. of India rules and TDS certificate will be issued by BHEL for such deductions. Applicable service tax on E&amp;C charges will be payable extra. The liability of depositing the same to the Govt. will be of the supplier</p>

No row shall be left blank. Please indicate NA, in case the item is “not applicable”	Vendor's confirmation
<p><b>Validity:</b> Validity of the offer should be <b>120 days</b> from the date of tender opening.</p>	
<p><b>4. Release of Purchase Order:</b></p> <ul style="list-style-type: none"> <li>➤ Purchase Orders (separate for supply and I&amp;C portion if applicable) will be released on the successful vendor (L1 vendor)</li> <li>➤ Order shall be placed on single vendor on cumulative L1 basis.</li> <li>➤ This tender is composite in nature and cannot be split-up to more than one vendor. Hence the entire work will be awarded to only lowest bidder of the tender. Work cannot be split-up and given to MSE vendor if they are L2 or above ranking in the tender.</li> </ul>	
<p><b>5. Payment terms for Supply Portion</b> 80% Payment after receipt and acceptance of material and balance 20% within 45-90 days after receipt, acceptance and commissioning of supply material against submission of 10%PBG for order value.</p>	
<p><b>Installation &amp; Commissioning Portion (if applicable only):</b> 100% of the Erection / commissioning charges (in case contract involves erection /commissioning) shall be paid only on completion of such erection / commissioning at BHEL</p>	
<p>Any deviation in the above payment term will attract loading as mentioned below. “Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.</p>	
<p><b>6. Performance Bank Guarantee (PBG):</b> The Bidder, in the event of an order, should furnish a Bank Guarantee from an Indian Bank approved by BHEL, at no extra cost in a format prescribed by BHEL, along with the order, for an amount equivalent to <b>10% (Ten percent)</b> of the value of the contract. The PBG shall be valid for a period of 18 months from the date of dispatch or <b>12 months</b> from the date of receipt / acceptance / commissioning of the equipment at BHEL, Tiruchi whichever is more, with a claim period of two months.</p> <p>The Performance Bank Guarantee shall be obtained from any one of the following banks which is a member bank in our consortium of banks.</p> <p><b>LIST OF CONSORTIUM BANKS</b> 1.DEUTSCHE BANK 2.HDFC BANK 3.ANZ GRINDLAYS BANK 4.CITI BANK 5.STANDARD CHARTERED BANK 6.BANK OF AMERICA 7.ABN AMRO BANK 8.IDBI LTD 9.ICICI BANK LTD 10.THE HONGKONG AND SHANGHAI BANKING .CORPORATION LTD.</p> <p><b>LIST OF NATIONALISED BANKS</b> 1.ALLAHABAD BANK 2.ANDHRA BANK 3.BANK OF INDIA 4.BANK OF BARODA 5.BANK OF MAHARASTRA 6.BHARATH OVERSEAS BANK 7.CANARA BANK 8.CENTRAL BANK OF INDIA 9.CORPORATION BANK 10.DENA BANK 11.INDIAN BANK 12.INDIAN OVERSEAS BANK 13.OREINTAL BANK OF COMMERCE 14.PUNJAB NATIONAL BANK 15.PUNJAB &amp; SIND BANK 16.STATE BANK OF INDIA 17.STATE BANK OF TRAVANCORE 18.STATE BANK OF MYSORE 19.STATE BANK OF BIKANER &amp; JAIPUR 20.STATE BANK OF HYDERABAD 21.STATE BANK OF PATIALA 22.STATE BANK OF MAHARASTRA 23.STATE BANK OF SOURASTRA(SBI-13.09.08) 24.SYNDICATE BANK 25.UCO BANK 26.UNION BANK OF INDIA 27.UNITED BANK OF INDIA 28.VIJAYA BANK</p> <p><u>If PBG is issued by a Foreign counter part of the BHEL consortium Indian Bank, in case of claim against the PBG , it will be lodged in any one of the Indian counters of the Foreign Bank which issued the PBG.</u></p>	
<p><b>7. Liquidated damages (LD):</b> The delivery of the goods specified in the purchase order should be made within the time prescribed. LD for delay in ‘Supply’ and/or ‘I&amp;C’ will be applicable to the delays attributed to vendor. LD will be considered separately for ‘Delivery’ and ‘I &amp;C’. Where the seller supplies or dispatches the goods, beyond the delivery period Liquidated damages shall be applicable 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.</p> <p>The rate of LD for delayed E&amp;C shall be @ 0.5% per week of delay of total PO value (Supply + I &amp;C) in I &amp;C subject to a maximum of 10% of total PO value (Supply + I&amp;C).</p> <p>For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value.</p> <p>Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).</p>	
<p><b>8. Risk Purchase:</b> Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available from the best and the nearest available substitute. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.</p>	
<p><b>9. Delivery terms and evaluation process:</b> Indian Bidders should submit their offer on <b>FOR BHEL, Tiruchy</b> basis. Packing &amp; Forwarding and Freight &amp; Insurance charges from works to BHEL, Tiruchy to be indicated separately if extra from basic rate. Applicable % of ED &amp; Sales Tax , Commissioning Charges should be clearly indicated.</p> <p><b>Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHEL)</b></p>	

10.	<p><b>Guarantee:</b> Vendors shall provide a guarantee for a period of 12 months from the date of commissioning of the equipment or 18 months from date of supply, whichever is earlier. The date of B/L or AWB shall be taken as the date of supply. Also, a PBG has to be given which shall cover the guarantee period (with additional 2 months as claim period). Normally No deviation permitted and the deviated offers are liable for rejection.</p>	
11.	<p><b>Short shipment / Warranty replacement:</b> In case of any short shipment in the main equipment / spares, Customs Duty levied on such supplies, shall be borne by the supplier. Any warranty replacement during the warranty period shall be on FOR, BHEL, Tiruchirappalli, basis.</p>	
12.	<p><b>Inspection &amp; Testing:</b> All goods shall be subject to inspection by BHEL or its authorized representatives at supplier's works or at BHEL stores or at any other place in India indicated by BHEL as the case may be. The supplier will not charge for the facilities provided for inspection of goods. In case of machine tools, the machine would be inspected and proved at supplier's works prior to dispatch however, final inspection and acceptance of the machine will be carried after installation of the machine at BHEL, Tiruchirappalli.</p>	
13.	<p><b>Test certificates / Operating and Maintenance manuals:</b> The Bidders shall clearly mention in their offer, that Test Certificates and Operating Maintenance Manuals, etc., as called for in the Technical Specification, in the required number of copies will be provided at no extra cost.</p>	
14.	<p>Payment through Bank is not preferred. In case of Payment through Bank is opted by Supplier, BHEL prefers documents submission through bank with copy of LR and door delivery of Goods to Site/Stores with Consignee copy attached. In this case Loading will be 3% on the offered value. Offers of indigenous Suppliers with payment terms as LC/Advance Payment are liable for rejection.</p>	
15.	<p><b>BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.</b></p>	
16.	<p><b>Reverse Auction (RA):</b> BHEL reserves the right to conduct on-line internet Reverse Auction ie. ONLINE BIDDING (THROUGH A SERVICE PROVIDER) for finalizing the Tender. This decision will be communicated to the technically qualified vendors after technical evaluation. Details / General terms / guidelines for conduct of RA are shown below Vendors are requested to confirm their acceptance for BHEL proceeding with RA route for finalization of the enquiry.</p> <ol style="list-style-type: none"> <li>For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.</li> <li>BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.</li> <li>BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact &amp; get trained.</li> <li>Business rules like event date, time, start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.</li> <li>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.</li> <li>BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing &amp; forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms &amp; conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction</li> <li>Reverse auction will be conducted on scheduled date &amp; time.</li> <li>At the end of Reverse Auction event, the lowest bidder value will be known on the network.</li> <li>The lowest bidder has to Fax/e-mail the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.</li> <li>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.</li> <li>In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price Bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.</li> <li>BHEL reserves the right to negotiate if need be, with the "L1" vendor of the Reverse Auction</li> <li><u>BHEL reserves the right not to consider offers from vendors not complying with the RA process for finalization of the enquiry.</u></li> <li>If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.</li> </ol> <p>In case BHEL decides to go for reverse auction, the H1 bidder(s) (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.</p>	
17.	<p><b><u>Special Provisions for Micro and Small Enterprises (MSE)</u></b></p> <p>MSE suppliers can avail the intended benefits only if they submit along with offer, attested copies of either EM II (Entrepreneur Memorandum Part II) certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed as per <b>Annexure - III</b>) applicable for the relevant financial year (latest audited), certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant status (Micro or small) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Offer/s received without these documents will lead to consideration of their offer at par with other bidders and MSE status of such suppliers shall be shifted to Non MSE supplier.</p>	

<b>18.</b>	<ul style="list-style-type: none"> <li>➤ Point to point confirmation for the Technical Specification enclosed to be provided. If there are any deviations, the same should be clearly specified. Offers received without confirmation to our specifications will be liable for rejection. If needed additional sheets shall be used.</li> <li>➤ Equipment offered shall be "New". Re-built / Re-conditioned / Used equipment's will not be accepted. Incomplete offers will not be considered for further processing Fixed price:</li> <li>➤ BHEL reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at any of BHEL projects / units.</li> <li>➤ BHEL shall be at liberty to reject or accept any tender, part or in full, at their own discretion and any such action is not liable for any question or claim against BHEL.</li> <li>➤ All Equipment's / Services including concerned personnel for carrying out the erection and commissioning of the equipment shall be arranged by the vendor. If any Services are availed from BHEL, it is only on chargeable basis unless otherwise specified.</li> <li>➤ 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</li> <li>➤ The Supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.</li> </ul>		
<b>19.</b>	<b>Company Details &amp; Contact</b>		
	Full Address of the company for future correspondence. (Copy of address proof & PAN card shall be attached along with Part-I)		
	Company Email ID:	Phone No.:	
	Fax No	PAN No	
	CST /TIN No	Service Tax No.	
	Name of the contact person:	Mobile No.:	
	e-mail ID		
<b>20.</b>	<b>TO BE CONFIRMED BY VENDOR</b>		
	Country of origin:		
	Station of dispatch/Port of Shipment		
	Delivery Terms (For destination or Ex-works )		
<b>21.</b>	<b>Packing &amp; Forwarding Charges, if any ( in % or Lumpsum) ie. extra from basic rate</b>		
	% of Excise Duty with cess		
	% of TAX (CST/VAT) (TNGST with FORM-17 or CST with C-FORM)		
	<b>(If applicable only)</b>		
	Installation & commissioning charge is inclusive (or) exclusive on basic rate		
	Service tax applicable extra or not		
	<b>Freight &amp; Transit Insurance</b> charges (if any, in Lumpsum (or) percentage) from Dispatching station to BHEL Tiruchirappalli, (Note:If the delivery terms is Ex Works the materials has to be sent through BHEL approved carrier only, in this case the Freight & Insurance will be borne by BHEL)		
<b>22.</b>	Delivery from the date of Letter of Intent / Purchase Order. <b>(This should be inclusive of Order acceptance, drawing approval and time period required for dispatch (B/L or AWB date) etc.,</b>		
<b>23.</b>	<b>Weight &amp; Cubage of package:</b> Approximate Net weight of the total consignment: Approximate Gross weight of the total consignment: Approximate volume of the total consignment:		
<b>For any queries / clarifications the bidders may contact us through our FAX NO. +91 431 2520719 or through e-mail &lt;pgavictor@bheltry.co.in&gt;</b>			

**NOTE**

- a) Your specific acceptance to our Payment terms, LD, Risk Purchase Clause & Submission of PBG for 10% of the order value are essential for consideration of your offer. Otherwise your offer is liable for rejection.
- b) No row shall be left blank. Please indicate NA, in case the item is "not applicable"

**Declaration:-**

I/We have gone through and understood the 'General guidelines & instructions to bidders for submitting offer' enclosed as a part of the Tender and confirm that our offer has been made in line with the same.

Name:

Signature with date:

(AFFIX OFFICIAL SEAL HERE)

Designation:

(PLEASE AFFIX YOUR SIGNATURE WITH SEAL ON EACH PAGE)

**MODEL PRICE BID FORMAT FOR INDIAN BIDDERS**

Enquiry No. &amp; Date:

Bidder's Offer No. &amp; Date:

Sl No	Description of item	Unit (SET /No)	QTY	Rate /Qty in Rs. (excluding of all taxes)	VAT/CST in % (TNGST with FORM-17 or CST with C-FORM)	ED in %	Service Tax in %	Total Value in Rs. (inclusive of all taxes)
	<b>Supply portion</b>							
	Service portion- if exclusive from basic price (available in scope only)							
	Packing & Forwarding charges (if any) in percentage (or) Lumpsum							
	FOR Dispatching station value in Rs.							
	Percentage of Freight & transit insurance charges, if any (Lumpsum or %) Freight & Insurance charges from Dispatching station to BHEL, Tiruchirappalli (Note:If the delivery terms is Ex Works the materials has to be sent through BHEL approved carrier only, in this case the freight & Insurane will be borne by BHEL)							
	Approximate Net weight of the total consignment							
	Approximate Gross weight of the total consignment							
	Approximate Dimensions of the Consignment							

Signature &amp; Seal of Vendor

**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"**

**Certificate by Chartered Accountant on letter head**

This is to Certify that M/S .....  
(hereinafter referred to as 'company') having its registered office at .....  
is registered under MSMED Act 2006, (Entrepreneur  
Memorandum No (Part-II) ..... dtd:.....,  
Category: ..... (Micro/Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as on  
date..... as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost  
excluding land and building and the items specified by the Ministry of Small Scale Industries vide its  
notification No.S.O.1722(E) dated October 5, 2006 :  
Rs.....Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and  
furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED  
Act, 2006:  
Rs.....Lacs

The above investment of Rs.....Lacs is within permissible limit of  
Rs.....Lacs for .....Micro / Small (**Strike off which is not applicable**)  
Category under MSMED Act 2006.

Date:

(Signature)

Name -

Membership number -

Seal of Chartered Accountant