

BHARAT HEAVY PLATE & VESSELS LIMITED.,
(A Subsidiary Bharat Heavy Electricals Limited)
A Government of India Enterprise
Visakhapatnam – 530 012 INDIA.
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NOTICE INVITING TENDER (NIT)

Category of Tender: **TWO BID**

SUB: WELDING POWER SOURCE – 500 A

Our Ref: **MM/2/10/1648/CAP/W-643/5372**

DATE: 04.12.2010

Sealed quotations in duplicate are invited from suppliers on or before **07.01.2011** **SUPERSCRIBING OUR REFERENCE AND CATEGORY OF TENDER** on the cover, for supply of the under mentioned stores within the above due date, otherwise send **REGRET LETTER**, strictly subject to the Terms & Conditions attached herewith. **LATE TENDERS ARE NOT ACCEPTABLE.**

ITEM No.	DESCRIPTION / SPECN. / SIZE	QTY
1.	WELDING POWER SOURCE – 500 A – SMAW AS PER TECHNICAL SPECIFICATIONS ENCLOSED (Annexure – 1).	28 Nos.
	Encl: 1. Technical Specifications (ANNEXURE-1) ----- (8 Pages) 2. QUALIFYING CRITERIA ----- (3 Pages) 3. General Terms & Conditions for submission of offer ----- (9 Pages) (Including Check Lists)	

For BHARAT HEAVY PLATE & VESSELS LTD.,

For Dy. GENERAL MANAGER (MM)

PART B
TECHNICAL SPECIFICATIONS FOR INVERTER CONTROLLED WELDING POWER SOURCE - 500A – SMAW

Annexure - 1

AA. APPLICATION :			
SL. No.	FEATURES /BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
1.1.0	The proposed Welding Machine is intended for use with Shielded Metal Arc Welding (SMAW) Process and also Manual TIG Welding (GTAW) Process for Radiographic Quality Welds like Butt Joints (coming in tubes and pipes), Fillet Welds, and Single Groove Welds coming in High Pressure Vessels using Ø 2.5 mm to Ø 6.3 mm basic / Acidic / Neutral / Rutile coated stick electrodes .		
BB. MACHINE CONFIGURATION : [The scope of supply shall consist of the following, for each Machine]			
SL. No.	FEATURES /BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
2.1.0	Welding Power source with Transport Trolley with integrated Argon Gas Cylinder Cart		
2.2.0	Manual Arc Welding Control Unit Integrated with Power source (for Hot Start & Arc Dynamics Control)		
2.3.0	Power source also shall be suitable for TIG / GTAW Welding with Scratch Start		
2.4.0	Hand Operated Remote Control Unit for Current Variation		
2.5.0	Foot Operated Remote Control Unit for Current Variation (with accelerator type operation)		
2.6.0	Set of Inter-Connecting Cables, Adaptors , etc. (if required)		
2.7.0	Welding Cable and Welding Holder (multiples of 5 mtrs. in length)		
2.8.0	Return Current Cable with Screw/Crocodile Grip Type Earth Clamp.		
2.9.0	Gas Cooled TIG Welding Torch		
2.10.0	Electrical & Mechanical Spares for Power source & Control Unit		
2.11.0	Operation & Maintenance Manuals – Three Copies per Machine		
2.12.0	Commissioning of Equipment and Performance Prove-out of the offered Equipment at BHPV Works, by Supplier's Representative, free of cost.		

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CC. EQUIPMENT SPECIFICATION : POWERSOURCE FEATURES				
SL. No.	FEATURES	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
3.1.0	Type	Power source shall be Inverter Controlled with IGBT and capable of delivering a smooth Constant Direct Current (suitable for DCEP and DCEN modes of welding operations) even with a fluctuation of $\pm 10\%$ in the Input Voltage		
3.2.0	Switching Frequency	BIDDER has to indicate the Switching Frequency of the Inverter Circuit and the make of IGBT used		
3.3.0	Current Rating	500 Amps. @ 60 % Duty Cycle OR Minimum 400 Amps. at 100% Duty Cycle.		
3.4.0	Operating Range for Welding Current	20 Amps. to 500 Amps. (with stepless variation)		
3.5.0	Open Circuit Voltage	BIDDER to mention the Open Circuit Voltage for the offered Power source [Preferred OCV is above 65 V]		
3.6.0	Current Setting	The variation in the set value of the welding current to the actual value, shall not exceed 1 %.		
3.7.0	Current Control	Preferred through a local variator [with the help of a 3 inch diameter KNOB] provided in the Front Panel of Power source and the Remote Control Unit.		
3.8.0	Power Input	415 $\pm$ 10% V AC, 3 Phase, 50 $\pm$ 2% Hz, through a 3 Wire System [4 th wire for EARTHING] – No Neutral Conductor		
3.9.0	Input Power Cable	A 10 metre long electric input power cable with protective sheathing to be provided with the power source.		
3.10.0	Control Panel Switches	Power ON/OFF, Remote ON/OFF, Voltage & Ampere Control, Hot Start Control, Arc Dynamics Control, GTAW/SMAW Mode Selection, etc.		
3.11.0	Voltmeter & Ammeter	Factory Installed Ammeter & Voltmeter on the front panel with easy removal and replacement (i.e., without lifting the top cover of the Welding Power source) for periodic instrument calibration		

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Annexure - 1

CC. EQUIPMENT SPECIFICATION : POWERSOURCE FEATURES			[....contd.....]	
SL. No.	FEATURES	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
3.12.0	Arc Dynamics Control - Electronic Inductance Variable Control	To minimise spatter and optimise weld-bead wetting action, during welding of materials special materials like Stainless Steel, T 91/P 91, Inconel, in Addition to Carbon and Low Alloy Steels.		
3.13.0	Insulation	Class "H" – to suit Tropical Working Conditions		
3.14.0	Machine Protection	IP 23 – Degree of Protection		
3.15.0	Machine Cooling	The Power source shall feature forced air cooling system that ensures adequate cooling of the components while preventing dust and metal particles from being drawn in.		
3.16.0	Functional / Elemental Design Protection	a) Inbuilt protection for the IGBT/Power source Against Thermal / Overload / Short-Circuit / Single or Two Phase Power Input Conditions. b) All PCBs shall be sprayed with mould coating to prevent damage from dust and grinding particles. c) Machine Design to ensure proper earthing for the machine and its peripherals	[BIDDER has to specifically furnish technical details on how these protective measures are addressed in the Machine Design]	
3.17.0	EMI Suppression	a) Power source shall be suitably equipped, to prevent propagation of EMI either into or out of the Power source. b) All metal enclosures and internal shields shall prevent radiated EMI. c) BIDDER has to elaborate the DESIGN FEATURES to meet the above requirements		
3.18.0	Portability	Under-Carriage with hard rubber lined wheels for portability of the power source by manual pushing and bottle rack for holding one Argon Gas Cylinder		
3.19.0	Ambient Conditions	Temperature up to + 50 ° C ; Humidity up to 90 % but both upper limits do not occur simultaneously		

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CC. EQUIPMENT SPECIFICATION : POWERSOURCE FEATURES			[....contd.....]	
SL. No.	FEATURES	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
3.20.0	Load Compensation	Output variation due to line voltage fluctuation, cable heating or drift due to the use of long cable, [20 metres long welding cable] to be eliminated.		
3.21.0	Arc Strike	Selection for Instantaneous Arc Strike with HOT START for SMAW Process.		
3.22.0	Electrode Holder & Return Current Connection	Heavy Duty rugged LUG type terminals to connect 50 mm ² Welding Cable for SMAW Electrode Holder and Return Current Cable for SMAW Process		
3.23.0	Welding Current Cable	SMAW Welding (current) Cable, 20 mtrs. in length, with one end connected to the Power source and the free end provided with a FEMALE Connector to connect a MALE Connector with 50 mm ² Cable of the Manual Welding Electrode Holder.		
3.24.0	Return Current Cable	Welding Current RETURN Cable, 10 mtrs. in length, with one end connected to the Power source and the other end provided with a Screw Type Earth Clamp		
3.25.0	TIG Arc Ignition	By means of scratch start		
3.26.0	Torch Connection	Facility to connect Gas Cooled TIG Torch through suitable adapters to prevent leakage of Gas for GTAW		
3.27.0	Power Rating	BIDDER to indicate the Maximum Power Rating [in kVA] of the Power source and the NO-LOAD Power Consumption in Watts.		
3.28.0	Power Source Model	To Specify the Model of Power source Offered		
DD. EQUIPMENT SPECIFICATION : REMOTE CONTROL UNIT FEATURE				
SL. No.	FEATURES	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
4.1.0	Application	For welding current variation from a distant work place, in addition to that provided in the front panel of the welding power source.		
4.2.0	Type	Hand Operated (for SMAW) and Foot Operated (for GTAW) with 10 mtrs. long control cable with quick fix type end connectors		
4.3.0	Current Control	Stepless Variation of Welding Current		

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EE. EQUIPMENT SPECIFICATION : TIG WELDING TORCHES' FEATURES				
SL. No.	FEATURES	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
5.1.0	Application	Suitable for GTAW Process and for the nature of welding works listed under Clause Sl. No. 1.0.0 and compatible to the welding power source offered.		
5.2.0	Make	Preferred makes are WELD-CRAFT of USA, KEMPPI of FINLAND, OTC/DAIHEN CORPN. of JAPAN, ESAB, Migatronics, SAF, Advani, L&T		
5.3.0	Torch Configuration	The Torch Head – Gas Lens & Nozzle configuration shall be suitable for performing the following : a. Tube Butt Welds in close pitch tubular panels with a minimum clear gap of 12 mm between the adjacent tubes [Gas Nozzle End Diameter is to be 11 mm for a length of 25 mm] b. Root GTAW pass welding in a 140 mm (wall thickness) Pipe Butt Welds [Gas Nozzle End diameter is to be 11 mm for a length of 45/65 mm]		
5.4.0	Cable Sheathing	Protective Sheathing to be provided for the TIG Torch Cables & Hoses, to withstand shopfloor rough use for the entire length of the cables/hoses.		
5.5.0	Gas Cooled Torch	a. Current Rating: 300 Amps. Minimum @ 100 % Duty Cycle b. Cable Length : Not less than 7.5 Metres		
FF. O & M MANUALS				
SL. No.	PARTICULARS	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
6.1.0	No. of Copies	3 (Three) for Each Machine		
6.2.0	Language	English		
6.3.0	Soft Copy	One SOFT COPY in DC-ROM is to be given for each machine, containing the details mentioned under Clause Sl. No. 6.4.0		

PART B
TECHNICAL SPECIFICATIONS FOR INVERTER CONTROLLED WELDING POWER SOURCE - 500A – SMAW

Annexure - 1

FF. O & M MANUALS			[....contd.....]	
SL. No.	PARTICULARS	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
6.4.0	Manual Details :	a. Manual shall contain all instructions for machine installation and welding trial testing, in sequence. b. Manual to give general circuit diagrams, showing the interconnection of various elements and also details on PCBs [Printed Circuit Board] like tapping voltages, main electronic elements' specifications and ratings, etc. c. Manual to give other details like trouble shooting chart, weld parameters selection for various base metals, etc. d. Master List of Parts & Spares used in the machine with Make, Model, Rating, etc.		
GG. SPARES :				
SL. No.	FEATURES	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
7.1.0	Power Source	All type of Spare Parts including the following items : a. IGBT Kit b. All Types of Fuses c. Control – Transformers d. Printed Circuit Boards / PCBs – All Types e. Rectifiers, Thermistors, Capacitors f. Switches and Knobs g. Cooling Fan Motor h. Ammeter & Voltmeter i. Potentiometer j. Relays & Timers k. Receptacles l. Control Cable with End Connectors m. Filters n. Welding & Return Cable Connectors are to be COMPULSORILY QUOTED (with Unit Rate) for one power source required for 2 years of operation on THREE shift basis for 365 Days in an year.		

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GG. SPARES :			[....contd.....]																						
SL. No.	FEATURES	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS																					
7.2.0	Remote Control Unit	Complete Set of Remote Control Unit and its Spares like Knob, Potentiometer, etc. to be OFFERED																							
7.3.0	TIG TORCH Consumables	Complete Set of Consumable Spares for Ø 3.0 mm / Ø 4.0 mm Tungsten Electrode, “O” Rings, Gas Lens, Nozzle Diffusers, Ceramic Nozzles (both types), ColletBodies, etc. are to be OFFERED with unit price. List of Minimum Spares required for each welding machine is as follows : <table><tr><td>Description</td><td>Ø 3.0 Qty Nos.</td><td>Ø 4.0 Qty Nos.</td></tr><tr><td>Tungsten Electrode</td><td>25</td><td>10</td></tr><tr><td>“O” Rings</td><td>25</td><td>10</td></tr><tr><td>Gas Lens</td><td>25</td><td>10</td></tr><tr><td>Nozzle Diffusers</td><td>25</td><td>10</td></tr><tr><td>Ceramic Nozzles</td><td>50</td><td>20</td></tr><tr><td>ColletBodies</td><td>25</td><td>10</td></tr></table>	Description	Ø 3.0 Qty Nos.	Ø 4.0 Qty Nos.	Tungsten Electrode	25	10	“O” Rings	25	10	Gas Lens	25	10	Nozzle Diffusers	25	10	Ceramic Nozzles	50	20	ColletBodies	25	10		
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Ceramic Nozzles	50	20																							
ColletBodies	25	10																							
8.0.0. GENERAL POINTS :																									
SL. No.	PARTICULARS	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS																					
8.1.0	Inspection	a. The welding machines shall be offered for inspection by BHPV Engineers at supplier’s works for performance evaluation prior to despatch. b. Welding Trials are to be taken on butt joints of carbon & alloy steel tubes [size: Ø 51.0 mm & 4 mm wall thickness] and subjected to Radiographic Tests, for acceptance. c. Supplier to arrange for Tubes & Electrodes of Ø 2.5/3.15 mm of Class E-7018-1/E-9018-B3 for SMAW and Ø 2.4 mm x 1000 mm Filler Wires of Class ER 90 SB3 (2.25 % Cr - 1% Mo) and ER 70 SA1 (C-½ Mo) for TIG Welding																							

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8.0.0. GENERAL POINTS :			[....contd.....]	
SL. No.	PARTICULARS	BHPV SPECIFICATION	OFFER BY BIDDER	DEVIATIONS
8.2.0	Commissioning	The equipment shall be commissioned, free of cost by the supplier's representative at BHPV Works.		
8.3.0	Training	The Supplier's SERVICE ENGINEER shall give training in the Operation and Maintenance (mainly on electric/electronic troubleshooting) of the Machine for BHPV Staff, after the successful commissioning of the Welding Machines		
8.4.0	Guarantee	The machine shall be guaranteed for a minimum of 12 (twelve) months from the date of commissioning & performance prove-out at BHPV Visakhapatnam Works.		
8.5.0	Bought-Out Items	a) The Bought-Out Items - like Motors, IGBTs, ICs, Relays, Contactors, Switches, Electronic Elements, etc., used in the Power source & Control Unit shall be of Internationally Reputed Manufacturers only. b) BIDDER has to furnish the MAKE of Bought- Out Items proposed to be used in the Welding Machine, with the OFFER.		

WELDING POWER SOURCE – 500 A - SMAW***INVERTER CONTROLLED WELDING POWER SOURCE – 500 Amps. [60% Duty Cycle]*****SECTION – I : QUALIFYING CRITERIA**

The BIDDER is expected to give complete details against each clause in the table given below and wherever necessary an additional sheet may be attached (giving clear reference number) to cover the required details.

SL. NO.	PARTICULARS	VENDOR'S RESPONSE
1.0	Number of Years of Experience of the BIDDER (Original Equipment Supplier) in the field of design, manufacture and supply of 'INVERTER CONTROLLED MANUAL ARC WELDING MACHINES' [with the option for Scratch TIG Welding also] for Radiographic Quality SMAW & TIG Welding Applications for Pressure Parts Fabrication	
2.0	YEAR of LAUNCH of the MODEL quoted against this ENQUIRY	
3.0	Number of 'Inverter Controlled Manual Arc cum Scratch TIG Welding Machines' supplied, till date in the QUOTED MODEL	
4.0	Number of 'Inverter Controlled SMAW with Scratch TIG Welding Machines – 500 Amps. Rating with 60 % Duty Cycle' supplied and commissioned till date for the following category of CUSTOMERS a) High Pressure Boiler Industries b) Nuclear & Space Applications c) Heat Exchangers / Pressure Vessels	
5.0	Details on International Standards followed in Design and Testing of Welding Machines	
6.0	Comprehensive Details, on Performance Testing of Welding Machines carried out at the Factory, to be furnished with the Technical Offer.	
7.0	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centres in India, to be furnished compulsorily.	
8.0	BIDDER to indicate the Country of Origin for the supply of welding machines. Machines manufactured in Countries like TAIWAN/CHINA/KOREA are not preferred.	

WELDING POWER SOURCE – 500 A - SMAW**SECTION – II**

The BIDDER has to compulsorily meet the following requirements to get qualified for submitting an offer for the Inverter Controlled SMAW / TIG Welding Machine.

SL. NO.	PARTICULARS	VENDOR'S RESPONSE
9.0	The BIDDER shall have a minimum of TEN Years of Continuous Experience in the Design, Manufacture & Supply of Inverter Controlled SMAW cum Scratch TIG Welding Machines.	
10.0	The BIDDER should have supplied a minimum of 50 number of Inverter Controlled SMAW cum Scratch TIG Welding Machines with rating 500 Amps. (@ 60 % Duty Cycle) and above to Customers in India. Indicate the number of such welding machines sold in India.	
11.0	Reference List of Customers and Performance Certificate from minimum THREE CUSTOMERS [Heavy Engineering Companies] with full contact details of CONTACT PERSON, who are the End Users of the MODEL (given under Clause No.10.0) of Inverter Controlled SMAW cum Scratch TIG Welding Machines.	

WELDING POWER SOURCE – 500 A - SMAW

SECTION – III

The BIDDER has to comply with the following, for accepting the Technical Offer for scrutiny by the Purchaser:

SL. NO.	PARTICULARS	VENDOR'S RESPONSE
12.0	The BIDDER shall submit the offer in TWO PARTS - Technical [with PART A & PART B] & Commercial and Price Bid.	
13.0	The Offer shall contain a comparative statement of Technical Specifications given by BHPV and the Offer Details submitted by the Bidder, against each clause. A just 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer.	
14.0	The BIDDER shall assure a continuous support for SPARES and SERVICE for TEN Years, from the date of commissioning of the equipment at BHPV Works.	
15.0	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details / literature on the QUOTED MODELS of Welding Power sources	
16.0	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 for the scope of supply.	
17.0	Earlier performance & field experience (service support) with BHPV (if any) will be a reckoning factor for the technical qualification of the OFFER.	
18.0	The expected delivery period (including the time for Pre-Dispatch Inspection clearance by BHPV) for the welding machines is not more than six months from the date of issue of BHPV Purchase Order. In case the quoted delivery period extends beyond six months, an additional grace period of two months is permitted, but with a loading for arriving at the PRICE COMPETITIVENESS of the Offer (if the OFFER is technically acceptable on all accounts). Details are given in the commercial terms of the this tender	



COMMERCIAL TERMS AND CONDITIONS FOR SUBMISSION OF OFFER

1.0 QUOTATIONS

Bidders shall submit the offer in TWO INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.

Envelope I: This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked **“Part I – Technical and Un-priced commercial bid”** Indicating Tender No., Due Date and Address & Reference of the Bidder.

Envelope II: This sealed envelope should contain price details this envelope should be clearly marked **“Part II - Price bid”** indicating Tender No., Due Date and Address & Reference of the Bidder.

Both the envelopes (Part I & II) shall be put in one cover, duly sealed, superscribing as Part I and Part II of Tender No., due date of opening and the address and reference of the Bidder

The above offer should reach this office on or before the due date by 14.00 Hrs (IST)

Tender should not be addressed to any Individuals name but only designation to

Dy. General Manager (MM)
BHARAT HEAVY PLATE & VESSELS LIMITED
VISAKHAPATNAM - 530 012 (A P), INDIA.

Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in ENGLISH and accompanied by technical literature catalogue and detailed dimensional drawings in ENGLISH or otherwise the offers will not be considered.

2.0 PART I (TECHNICAL & UN-PRICED COMMERCIAL BID)

2.1 Technical

This part shall include / indicate the following:

2.1.1. Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.

2.1.2 Point by point confirmation for the Technical Specification enclosed is to be provided. If there are any deviations the same should be clearly specified. Offers received without conformation to our specification will be rejected.

2.1.3 List of customers to whom same or similar equipment have been supplied along with performance certificates to be enclosed.

- 2.1.4. Relevant catalogue to be attached.
- 2.1.5. List of spares parts (with part numbers) for two years operation and maintenance should be attached.
- 2.1.6. Information on shipping weight and cubage (length, width & height) to be provided
- 2.1.7. In case of foreign bidder offer, the Principal's technical offer only should be enclosed.
- 2.2 Un-Priced Commercial
 - This part shall include / indicate the following
 - 2.2.1. Port of shipment / Station of dispatch
 - 2.2.2. Terms of payment
 - 2.2.3. FOB/FCA price along with freight charges upto Chennai port (for foreign bidders) Ex-works/FOR Dispatch Station price along with freight charges upto BHPV Visakhapatnam (for Indian bidders)
 - 2.2.4. Taxes, Service tax & duties including Cess applicable.
 - 2.2.5 Delivery Schedule
 - 2.2.6. Filled-in check list to be enclosed
 - 2.2.7. Offer validity
 - 2.2.8. Country of origin
 - 2.2.9. Percentage of agency commission if any along with a copy of Agency agreement The FOB/FCA/CFR Prices quoted shall include the agency commission.
 - 2.2.10. A copy of "Un-Priced Part II 'i.e., a copy of the Price Bid without the price details to be enclosed.
 - 2.2.11 BHPV is eligible for availing CENVAT / VAT credit on both inputs and capital inputs. The suppliers invoice should separately indicate the amount of duty / taxes and should invariably mention the following details:
 - 1. The Central excise registration number, range division and commission rate of the supplier's jurisdiction.
 - 2. The rate of duty and 8 digit central excise tariff heading of the item supplied.
 - 3. The TIN, VAT, CST registration number of the supplier.

The duplicate copy of the invoice is required for availing CENVAT credit and original copy for availing VAT credit, if purchased within the state.

In case of foreign bidders the duplicate copy of the electronic Bill of Entry along with TR6 Challan should be made available for availing CENVAT credit on CVD, Cess (S) and SAD.

3.0 PART II (PRICE –BID)

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part-I

4.0 OPENING OF TENDERS

The Part I – Technical & un-priced commercial bid alone would be opened on the Tender opening date. The Part II – Price bid of technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the Price Bid opening date. Clarifications if any required by BHPV FOR Technical evaluation / commercial evaluation would be sought from Bidders before opening of Part II – price bid.

GENERAL

- 5.1 Incomplete offers will not be considered.
- 5.2 **Fixed priced:** Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order. A bid submitted with an adjustable price will be treated as non-responsive and rejected. Prices shall be written in words and figures. In the event of difference, the price in words shall be valid and binding. Unit prices shall be considered correct in the event of any discrepancy with regards to total price.
- 5.3 **Bid currency:** Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their home currency, which should be clearly indicated in the un-priced commercial bid as well as in the price bid.
- 5.4 **Terms of Delivery:** Bidders are required to quote delivery period as mentioned in sl.no.2.0 of Part-A (SECTION III) enclosed. Foreign Bidders should submit their offer for net FOB/ FCA – Nearest Sea Port / Air Port as well as CFR / Chennai Seaport/ Airport. Freight charges upto Chennai port to be indicated separately. Indian Bidders should submit their offer for FOR Despatching station as well as FOR BHPV Visakhapatnam basis. Freight charges from works to BHPV, Visakhapatnam to be indicated separately. Delivery from the date of Purchase Order to be mentioned in the offer.
- 5.5 **Taxes and Duties :** All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST & TIN No/ Tariff No. etc, failing which the purchaser will not be liable for payment of such Taxes and Duties (Our TIN No.28280189432, APGST No. VSP/04/1/1023 dtd 24.08.1968. CST No.VSP/04/1/1012 dtd 24.08.1968 & BHPV ECC No AAA CB 7076 N-XM001. Assessment circle Visakhapatnam.)
- 5.6 **Validity:** The offers for main equipment and spares shall be kept open for acceptance for a period of 120 days (one hundred and twenty days) from the dates of opening of the tender (part I)

5.7 Terms of Payment:**5.7.1 Indian Bidders:**

- 5.7.1.1 : 90% payment will be made within 45 days of receipt of material and balance 10% will be made after acceptance of material/commissioning of the equipment at BHPV, Visakhapatnam and on submission of Performance Bank Guarantee.

5.7.2 Foreign Bidders

An Irrevocable letter of Credit shall be established for 80% of FOB/FCA/CFR/(excluding Indian Agent's commission) 2 months prior to shipment and valid for 3 months for negotiation against shipment. Letter of Credit shall be opened through a branch of State Bank of India in the country where order shall be placed. In case, in the country where order is placed, State Bank of India is not there, Letter of Credit will be confirmed by foreign banker. Balance 20% of FOB/FCA/CFR value shall be paid through sight draft on Commissioning & acceptance of the equipment at BHPV Visakhapatnam, against submission of 10% performance bank guarantee. All Bank charges outside India are to supplier's account. Lumpsum erection and commissioning charges if any, shall be payable after satisfactory erection & commissioning of the equipment by sight draft against certificate issued by the competent authority.

5.7.3 Common to both India & Foreign Bidders.

Erection & Commissioning (E&C) charges will be released after deduction of Income Taxes as per the Govt of India rules. The TDS certificate will be issued by BHPV. Applicable service tax on E&C charges will be payable extra. The liability of depositing the same to the Govt will be of the supplier.

5.8 DUNS number (allotted by M/s. DUN & Bradstreet) shall be mentioned in your offer.

5.9 **Guarantee:** The equipment shall be guaranteed for a period of 24 months from the date of commissioning and acceptance.

5.10 **Contract Execution Bank Guarantee (CEBG):** The successful tenderer shall furnish a Bank Guarantee from any Nationalized Bank for 5% of Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) confirming that the order will be executed as per the terms and conditions and this should be valid till final dispatch date (LR/GR/BL/AWB) with additional 2 months claim period. Letter of Credit will be processed only after receipt of CEBG. The CEBG is to be furnished within 3 weeks from the date of Purchase order.

5. 11 **Performance Bank Guarantee (PBG):** The supplier shall furnish a Bank guarantee from any Indian Nationalized Bank approved by BHPV in the format, given by BHPV along with purchase order for 10% of the Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) valid for period of 24 months from the date of commissioning & acceptance of the equipment at BHPV – Visakhapatnam, with additional claim period of 2 months.

The CEBG & PBG shall be obtained from any Indian Nationalized Bank

5. 12. **Liquidated damages:** Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional penalty at the rate of ½% of the value of goods for each week of delay subject to a maximum of 15% of the Purchase Order value.

5. 13 **Risk purchase:** If the supplier fails to deliver the goods within the delivery specified in the Purchase Order, BHPV 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 delivery period mentioned in the Purchase Order.

5. 14 **Indian Agent & Agency commission:** An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The FOB/FCA/CFR price quoted by the Foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the offer. This will be paid by BHPV in India Rupees, on satisfactory commissioning & acceptance of the equipment. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished along with offer. For calculation of Rupee equivalent of Agency Commission exchange rate as prevailing on the date of Purchase Order will be taken.

5. 15 **Short shipment / Warranty replacement:** 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 warrantee period shall be on FOR, BHPV – Visakhapatnam, basis.

5. 16 **Inspection & Testing:** All goods shall be subject to inspection by BHPV or its authorized representatives at supplier's works or at BHPV stores. 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 BHPV, Visakhapatnam.

5. 17 **Operating and Maintenance manuals:** The Bidders shall clearly mention in their offer that Operating Maintenance Manuals as called for in the Technical Specification in the required number of copies will be provided.

5. 18 **Cenvat & VAT credit. (for Indian Bidders only):** The quotation must indicate Tariff item number and rate of Excise Duty applicable. The original Excise Duty Gate Pass will be required to be furnished in case charges to us. If the bidder is availing Cenvat credit for his input materials, the effect of proforma credit should be passed on to the purchaser.

5. 19 **Packing:** The Supplier shall arrange for packing suitably in all respects considering the peculiarity of the material involves for normal transport by sea / air / rail road and suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports.

5.20 **Salient Points of HSE (Health, Safety & Environment)** that are to be considered while submission of offer are:

5.20.1 Consumption benchmarks related to output shall be provided wherever applicable for key input resources (energy/fuels/chemicals)

5.20.2 Competency requirements for operation, maintenance and calibration, if any, shall be communicated

5.20.3 If any Hazardous chemicals as per MSIHC (Manufacturing, Storage and import of Hazardous Chemicals) Rules 1989/94/2000 are used, the MSDS shall be provided, along with On site & OFF site emergency plan (as applicable).

5.20.4 The noise level at operator level shall be within 90 dBA

5.20.5 OH&S (Occupational Health and Safety) control measures for safe working of machine as applicable shall be specified

5.20.6 The machine/equipment shall be fitted with guard for rolling and moving parts and shall comply with applicable OH&S legislations and Factories Act 1948

5.20.7 The supplier shall submit the layout drawing of operating controls, displays etc and operating instructions to enable ergonomics evaluation and approval

5.20.8 The recommended PPE (Personal Protective Equipment) for the equipment shall be furnished

5.20.9 Alarm System (both visual and audible) and Automatic switch off of the equipment shall be provided for any intrusion, overloading, short circuiting or any malfunctioning of the equipment

5.20.10 Details of all hazardous / harmful substances discharges as by-products / wastes during operations of the machine / equipment, such as fumes, gases, dust particles, aerosols UV./IR (Ultra violet / Infra red) radiations, etc shall be furnished, along with their concentrations and their TLV, (Threshold Limit Value)

5.20.11 Appropriate pollution control measures shall be proposed to keep the emissions from the machinery / processes within the prescribed limit as stated in Environment Protection Rules 1986.

5.20.12 All furnaces, process units, DG sets, paint booths, shot blasting chambers, etc shall be provided with stack(s) of sufficient height as per guidelines laid down in the Environment Protection Rules 1986.

5.20.13 Wherever industry specific standards are not available for control of pollutants, general emission standards shall be used

5.20.14 Chemicals banned due to their negative impact on the environment shall not be used on the process

5.20.15 Fuels with sulphur content less than 0.05% shall be proposed.

- 5.20.16 Details regarding nature of waste generated and appropriate disposal practices available shall be provided, along with the operation procedure of the plant / process.
- 5.20.17 Hazardous chemicals and flammable substances shall be transported only through authorized transporters and all safety practices as laid down in applicable legislative requirements such as Central Motor Vehicle Rules, Manufacture, Storage and Import of Hazardous Chemical 1989, etc. shall be followed.
- 5.20.18 Primary materials used in the equipment shall be specified and they shall be eco – friendly.
- 5.21 Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHPV)
- 5.22 BHPV also reserve its right to allow to the Public Sector Enterprises ordering and price preference facilities as admissible under the existing policy.
- 5.23 BHPV reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at another project / unit.
- 5.24 BHPV 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 BHPV.
- 5.25 BHPV 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 governing RA are given below.

GENERAL TERMS AND CONDITIONS OF RA

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications. BHPV may resort to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING ON INTERNET.

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. BHPV will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
3. BHPV will inform the vendor in writing in case of reverse auction, the details of service provider to enable them to contact & get trained.
4. Business rules like event date, time, Start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
5. 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.

6. BHPV will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHPV like Packing & Forwarding charges, taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHPV standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
7. Reverse auction will be conducted on scheduled date & time.
8. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
9. The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHPV through Service provider within 24 hours of Auction without fail.
10. 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 BHPV as per prevailing procedure.
11. In case BHPV 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 BHPV shall be opened as per BHPV's standard practice.

5.56 Force Majeure clause: If at the time during the continuance of this contract the performance in whole or in part by either party of any obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events) then provided notice of happening of any such events is given by either party to other within twenty one days from the date of occurrence thereof neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist, if the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

CHECK LIST

Bidder's acceptance to BHPV's Standard Commercial Terms & Conditions.

Applicable for Indian bidders

(to be submitted along with the offer – please do not change the format)

BHPV Tender No: & Date:	Bidders Confirmation / response
Technical Confirmation to BHPV's Specification	Furnished / Not Furnished
Prices have been quoted on "FIRM PRICE" basis only.	Yes / No
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – please Specify)	
Delivery period from the date of Purchase Order Delivery Period required: as mentioned in sl.no.18.0 of Part-A (Section III) enclosed. A loading @ ½ % of the Purchase Order value per week will be done for the grace period requested. For evaluation 4 weeks will be considered as one month. Vendors quoting a delivery period beyond the 'the requested delivery plus the allowed grace period' is liable for rejection.	
Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 15% - (please Specify))	
Risk Purchase as per clause 5.13	Acceptable / Not acceptable
Payment terms : 90% payment will be made within 45 days of receipt of material and balance 10% will be made after acceptance of material/commissioning of the equipment at BHPV Visakhapatnam and on submission of Performance Bank Guarantee.	
Contract Execution Bank Guarantee (CEBG) as per Clause 5.10	Will be Provided / Will not be Provided.
Performance Bank Guarantee (PBG) as per Clause 5.11	Will be Provided / Will not be Provided.
Guarantee as per clause 5.9 (we require for a minimum period of 24 months from the date of Commissioning & acceptance – (please Specify))	
Approximate Net Weight of the total Consignment (please Specify)	
Approximate Gross Weight of the total Consignment (please Specify)	

Signature & Office Seal of the bidder

CHECK LIST

Bidder's acceptance to BHPV's Standard Commercial Terms & Conditions.

Applicable for foreign bidders

(To be submitted along with the offer – please do not change the format)

BHPV Tender No: & Date:	Bidders Confirmation / response
Technical Confirmation to BHPV's Specification	Furnished / Not Furnished
Prices have been quoted on "FIRM PRICE" basis only.	Yes / No
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – please Specify)	
Currency in which quoted (please Specify)	
Port of loading (please Specify)	
Country of Origin (please Specify)	
Delivery period from the date of Purchase Order Delivery Period required: as mentioned in sl.no.18.0 of Part-A (Section III) enclosed. A loading @ ½ % of the Purchase Order value per week will be done for the grace period requested. For evaluation 4 weeks will be considered as one month. Vendors quoting a delivery period beyond the 'the requested delivery plus the allowed grace period' is liable for rejection.	
Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 15% - (please Specify))	
Risk Purchase as per clause 5.13	Acceptable / Not acceptable
Payment terms: (An irrevocable Letter of Credit shall be established for 80% of FOB/FCA/CFR (excluding Indian Agent's Commission) 2 months prior to shipment and valid for 3 months for negotiation against shipment. Letter of Credit shall be Opened through a branch of State Bank of India in the country where Order shall be Placed. In case, in the Country where order is placed State Bank of India is not there, Letter of credit will be opened through our bankers or as permitted by Government of India. Letter of Credit will not be confirmed by foreign banker. Balance 20% of FOB/FCA/CFR value shall be paid through sight draft on Commissioning. & acceptance of the equipment at BHPV, Visakhapatnam against submission of 10% performance Bank Guarantee. All Bank charges outside India are to Supplier's account. Lump sum erection and Commissioning charges, if any shall be payable after satisfactory erection and Commissioning of the Equipment by sight draft against Certificate issued by the competent authority as per clause 5.7.2)	
Agency commission (refer clause 5.14)	Acceptable / Not acceptable
Contract Execution Bank Guarantee (CEPG) as per Clause 5.10	Will be Provided / Will not be Provided.
Performance Bank Guarantee (PBG) as per Clause 5.11	Will be Provided / Will not be Provided.
Guarantee as per clause 5.9 (we require for a minimum period of 24 months from the date of Commissioning @ acceptance – (please Specify))	
Approximate Net Weight of the total Consignment (please Specify)	
Approximate Gross Weight of the total Consignment (please Specify)	

Signature & Office Seal of the bidder