

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

**Category of Tender: TWO BID  
(PRICED + UN - PRICED)**

**SUB: Design, Manufacture, Supply, Testing  
and Commissioning of 50 Ton Powered  
Movement Trolley**

Our Ref: **MM/2/10/2053/CAP/W-023/5023**

**DATE: 08.05.2013**

Sealed quotations in duplicate are invited from suppliers on **or before 31.05.2013** **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.	Design, Manufacture, Supply, Testing and Commissioning of 50 Ton Powered movement Trolley	<b>1 No's</b>
	<b>Encl:</b>  <b>1. Qualifying Criteria PART A</b> ..... <b>3 pages</b> <b>2. Technical Specifications PART B</b> ..... <b>9 Pages</b> <b>3. General Terms/ commercial terms and conditions</b> ..... <b>10 pages</b> <b>(INCLUDING CHECK LIST)</b>	

**For BHARAT HEAVY PLATE & VESSELS LIMITED,**

**For Dy. GENERAL MANAGER (MM)**

**QUALIFYING CRITERIA FOR THE SUPPLY OF BATTERY POWERED TRANSFER CARS**

**SECTION – I**

The BIDDER / VENDOR has to necessarily provide the following details, for making an assessment of the firm’s capability and competency for the supply:

[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]

<b>S.No.</b>	<b>PARTICULARS</b>	<b>VENDOR’s RESPONSE</b>
<b>1.0</b>	Number of Years of Experience of the BIDDER / VENDOR in the TRANSFER CAR Field [Design, Manufacture & Supply]	
<b>2.0</b>	Number of Powered Transfer Car supplied, assembled & commissioned till date with CAPACITY, VOLTAGE: a) BATTERY OPERATED b) POWER OPERATED [without battery]	
<b>3.0</b>	Number of Transfer Cars supplied, erected & commissioned till date for the following category of CUSTOMERS : a) Central Government Organizations b) Public Sector Enterprises c) Private Sector Companies [Large Scale Industries]	
<b>4.0</b>	Details of Design Set-Up [Design Personnel’s qualification and experience, Engg. Software and Hardware used, etc.]	
<b>5.0</b>	Details on International & Indian Standards or Codes followed in the Design	
<b>6.0</b>	Details of Manufacturing Facilities for Transfer Car Structures and Components a) Fabrication Facilities b) Machining Facilities c) Transfer Car Assembly & Testing	
<b>7.0</b>	Details on Heat-Treatment Facilities	
<b>8.0</b>	Details on Shop floor & Handling Facilities	
<b>9.0</b>	Comprehensive Details on Load Testing	
<b>10.0</b>	Details of Quality System followed	
<b>11.0</b>	Details on Stages of Internal Inspection and Inspection by External Agencies [other than Customer Inspection]	
<b>12.0</b>	Details of NDT Facilities – like X Ray, MPI and Ultrasonic Testing	

<b>13.0</b>	Details of Electrical Panel Manufacturing and Testing Facilities	
<b>14.0</b>	The Areas of Sub-Contracting Works and the Percentage of Sub-Contracting Works	
<b>15.0</b>	Type of Quality Audit and Routine Inspection Procedures for jobs loaded on the Sub-Contractors	
<b>16.0</b>	Any Additional Data to supplement the manufacturing capability of the BIDDER	

**SECTION – II**

The BIDDER / VENDOR has to compulsorily meet the following requirements to get qualified for submitting an offer for the Trolleys :

<b>S.No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR's COMMENTS</b>
<b>17.0</b>	The BIDDER / VENDOR / OEM shall have a minimum of TEN Years of Continuous Experience in Design, Manufacture & Supply of Powered Transfer car	
<b>18.0</b>	Only those vendors (OEMs), who have supplied and commissioned at least <b>FIVE POWERED TROLLEY</b> of 50Tons or Higher in the past five years (on the date of opening of Tender) and such machine is presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender) should quote.	
<b>19.0</b>	The bidding FIRM should have 'in-house' or 'self-owned' facility for FABRICATION and TESTING the rated capacity	
<b>20.0</b>	Reference List of Customers and Performance Certificate from CUSTOMERS (minimum 2 Customers) with details of CONTACT PERSON, for whom Battery Operated Transfer Cars of Capacity 75 Ton and above might have been supplied	
<b>21.0</b>	The BIDDER / VENDOR should have sound financial position and should furnish the Finance Statements (Summary of P & L Statement and Balance Sheet) for the immediate past three years.	
<b>22.0</b>	In case of short listing by the Purchaser, the BIDDER / VENDOR has to co-ordinate for the visit of BHPV Assessing Team, to the WORKS of the BIDDER / VENDOR with a notice period of 10 Days.	

**SECTION – III**

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

<b>S.No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR's COMPLIANCE</b>
<b>23.0</b>	The BIDDER / VENDOR shall submit the offer in TWO BIDS - Technical & Commercial Bid [ <b>including PART A and PART B</b> of Technical Specifications] and Price Bid. The Technical Offer shall be in line with the BHPV Technical Specifications and the Guidelines or Annexures mentioned, wherever applicable.	
<b>24.0</b>	The Technical Offer shall contain a comparative statement of Technical Specifications given by BHPV and the Offer Details submitted by the Bidder, against each clause of the specifications.	
<b>25.0</b>	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.	
<b>26.0</b>	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details of 'Bought-Out-Items' with copies of Product Catalogue and Selection Criteria	
<b>27.0</b>	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	
<b>28.0</b>	The reference List of Customers shall be accompanied with the details (Phone Number / E-Mail ID) of the CONTACT PERSON for cross reference by BHPV.	
<b>29.0</b>	The Performance Feedback of Powered Trolleys supplied to any of BHPV / BHEL Units (if any) on earlier occasions, will be a reckoning factor for the BIDDER Qualification on Technical Grounds.	
<b>30</b>	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centers in India. [Details on the number of trained personnel with field of experience to handle the service needs of BHPV in time]	
<b>31</b>	BHPV reserves the right to verify the information provided by vendor (including visit by a team of BHPV Officials to the Customer Works of the Vendor). In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	

**TECHNICAL SPECIFICATIONS for BATTERY POWERED TRANSFER CAR  
[CARRYING CAPACITY : 50 Tons]**

S.No.	PARTICULARS	BHPV SPECIFICATIONS	VENDOR'S TECHNICAL OFFER (With Complete Details)
1.0.0	APPLICATION	a. The proposed Transfer Car is intended for job/material handling with in a large and heavy fabrication industry, on the steel rails embedded in the shop floor.. b. The Transfer Car will be put to use for continuous duty. c. The operational environment will be dust prone, humid, tough due to loading of heavy steel pipes and ambient temperature going up to 50° C and relative humidity 93%.	
2.0.0	SCOPE OF SUPPLY	a. Design and Manufacture as per BHPV Tender Specifications. b. Assembly and Load Testing before Dispatch, at Supplier's Works. c. Commissioning and Performance Prove-Out at BHPV Works d. Mechanical & Electrical Spares e. Performance Guarantee for 12 months, from the date of commissioning or 18 months from the date of supply whichever is early.	
3.0.0	<b>TECHNICAL SPECIFICATIONS</b>		
3.1.0	Capacity	50,000 kgs. [50 Tons]	
3.2.0	Rail Track Gauge	1676 mm [Broad Gauge]	
3.3.0	Trolley Platform Length	6,000 mm [6 Mtrs.]	
3.4.0	Trolley Platform Width	2500 mm	
3.5.0	Height from Rail Level	1000 mm [Loading Platform Level]	
3.6.0	No of Axles	Two	
3.7.0	Wheel Tread Diameter	Vendor to specify	
3.8.0	Haulage Speed	Upto 30 mtrs. / min.	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

S.No.	PARTICULARS	BHPV SPECIFICATIONS	VENDOR'S TECHNICAL OFFER (With Complete Details)
3.9.0	Rail Track Gauge	Fabricated out of Steel Rolled Sections with required cross-section to transmit the load and also provided with suitable end couplings, for easy tie-up between the two Trolleys	
<b>4.0.0</b>	<b>CONFIGURATION &amp; CONSTRUCTION</b>		
4.1.0	Basic Design	The transfer car shall be configured to run on BG [Broad Gauge] track with a sturdy steel structure, powered with a suitable DC motor (in conjunction with a gearbox and battery) and provided with controls, operator console, battery charger, etc., as per the details given under the following clauses.	
4.2.0	<b>TRANSFER CAR CARRIAGE</b>	<ul style="list-style-type: none"> <li>a. The under frame shall be fabricated out of steel rolled beams and sections by welding.</li> <li>b. The top shall be covered with chequered steel plates of adequate thickness (not less than 8 mm) to withstand load capacity of the transfer car.</li> <li>c. The main members shall be adequately reinforced to withstand shock loads encountered in service.</li> </ul>	
4.2.1	Raw Material	<ul style="list-style-type: none"> <li>a. Only steel plates, tested and certified for quality by reputed inspection authorities, shall be used.</li> <li>b. Test Certificates to be produced for BHPV verification and form part of the documentation.</li> </ul>	
4.2.2	Welding Electrodes	<ul style="list-style-type: none"> <li>a. For all Horizontal Welding E 7018 Electrode only should be used.</li> <li>b. For all Vertical Welding E 7048 Electrode only should be used.</li> </ul>	
4.2.3	Welded Joint Testing	All Butt Welded Joints (if carried out/though not preferred by BHPV) shall be subjected to 100% X-Ray Testing and X-Ray Films to be produced for BHPV evaluation and form part of the documentation.	
4.2.4	Bottom Clearance	The bottom most part of the components mounted under the trolley carriage shall have a minimum ground clearance of 150 mm.	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

S.No.	PARTICULARS	BHPV SPECIFICATIONS	VENDOR'S TECHNICAL OFFER (With Complete Details)
4.2.5	Suspension system	The transfer car frame shall rest on the axle box through a suspension system with helical coil springs to eliminate shocks being transferred from rail to the under frame during operation.	
4.2.6	Battery Compartment	The battery compartment shall be protected from damage by means of guard plates	
4.2.7	Attachments	The below listed attachments are to be compulsorily provided with the Transfer Car.	
4.2.8	Buffers	Two each of spring loaded buffers with rubber pads shall be provided at both ends of the transfer car.	
4.2.9	Coupler	Hook type couplers are to be provided at both ends, for shunting purposes.	
4.2.10	Lifting Hooks	Adequate number of lifting hooks shall be provided for transporting / lifting the transfer car by means of overhead cranes	
4.2.11	Side Supports	4 Nos. of support pockets with inside dimension of 75 mm x 75 mm shall be provided on each side of the trolley to accept side-support pipes	
4.3.0	<b>DRIVE SYSTEM</b>	<ul style="list-style-type: none"> <li>a. The drive shall consist of DC Series motor coupled to the totally enclosed gearbox and drive the wheel through axle-mounted heavy duty gearbox.</li> <li>b. The power to the motor shall be supplied from the batteries mounted on the trolley itself.</li> </ul>	
4.3.1	Motor	<ul style="list-style-type: none"> <li>a. DC Series motor of suitable capacity having adequate starting torque shall be used.</li> <li>b. The motor shall be totally enclosed.</li> <li>c. The speed control shall be through armature resistance control.</li> <li>d. Three-step speed in either direction shall be provided.</li> <li>e. DC magnetic brake shall be provided.</li> </ul>	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

S.No.	PARTICULARS	BHPV SPECIFICATIONS	VENDOR'S TECHNICAL OFFER (With Complete Details)
4.3.2	Traction Motor Make	Motor make shall be of reputed make. BIDDER has to specify make and rating.	
4.3.3	Track Rail Size	ISR 90 Lbs./Yard	
4.3.4	Brake	Fail safe electro-magnetic brake shall be provided for instantaneous stopping.	
4.3.5	Gear-Box	<ul style="list-style-type: none"> <li>a. The gearbox casing shall be fabricated out of steel plates.</li> <li>b. The housing shall be stress relieved after fabrication to eliminate the internal stresses developed during welding and also to maintain the dimensional accuracy in service.</li> <li>c. The housing shall be of split design to facilitate easy assembly &amp; maintenance</li> <li>d. The mating joint faces shall be of accurate finish, blue matched &amp; lapped together to ensure leak proof joint.</li> <li>e. The gears shall be made out of alloy steel forging.</li> <li>f. The gear tooth size and face width shall be ample design with adequate factor of safety for severe shocks while in service during stall condition of motor as while braking under load.</li> <li>g. The gear geometry shall be designed as per IS and shall be heat treated for strength and wear resistance.</li> <li>h. The gear shafts shall be made out of alloy steel forgings and accurately machined before hardening for strength.</li> </ul>	
4.3.6	Wheel and Axle	<ul style="list-style-type: none"> <li>a. Die-Forged wheels of defect free and finish machined on running tread, flange and bore shall be provided.</li> <li>b. The tread shall be induction hardened to 300 to 350 BHN.</li> <li>c. Axles shall be of forged steel.</li> </ul>	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

S.No.	PARTICULARS	BHPV SPECIFICATIONS	VENDOR'S TECHNICAL OFFER (With Complete Details)
4.4.0	<b>CONTROL SYSTEM</b>	a. DC Motor shall be used with resistance for speed and torque control. b. The resistance value shall be selected so that the motor delivers required torque while starting and current is kept within the permissible safe limit. c. Heavy-duty electromagnetic contactors shall be used to include and remove the resistance in the circuit. d. The control shall be by push buttons mounted in the control console. e. The driver console shall be provided with cover and lock and key to avoid unauthorized operation.	
4.4.1	<b>Main Control</b>	Master controller with Dead-Man handle mounted at the driver's platform at one end of the trolley.	
4.4.2	<b>Remote Control</b>	Pendant type hand held Remote Control Unit with 5 mtr. long cable with quick-fix end connectors.	
4.5.0	<b>BATTERY</b>	a. Battery shall be accommodated in the transfer car suitably for easy maintenance, charging & replacement. b. Battery shall be Iron clad, heat sealed polypropylene classic motive power battery and assembled in steel trays duly FRP lined, including inter cell connectors, terminal take off, charging socket and harness, complete with all components, conforming to IS: 5154 of 1980 & Amendment-1.	
4.5.1	<b>Battery Initial Charging</b>	Supplier shall charge the battery at site. Sufficient quantity of electrolyte and suitable Charger shall also be supplied along with the battery.	
4.5.2	<b>Battery Power Rating</b>	36 V DC, 300 AH Storage Type, Traction Duty, Lead-Acid Battery	
4.5.3	<b>Battery Make</b>	Storage Battery shall be of internationally reputed make only. BIDDER has to specify make & power rating of the Battery.	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

S.No.	PARTICULARS	BHPV SPECIFICATIONS	VENDOR'S TECHNICAL OFFER (With Complete Details)
4.6.0	<b>BATTERY CHARGER</b>	Suitable for 36 V DC, 300 AH, Lead-Acid Battery. Charger shall have the following features : a. Constant current equalizing facility with auto cut-off. b. Protection for reverse battery, over current and short circuit. c. Free standing, self – compensating, and 100% automatic charging. d. Charging current and charging voltage indication. e. On delay start.	
4.6.1	Input Electric Power	The battery charger shall be suitable for input electric supply through a 415VAC $\pm$ 10%, 50Hz $\pm$ 3% from 3 Phase, 3 Wire System. [No neutral conductor]	
4.6.2	Power Cable	10 mtr. long charging cable of adequate size, with end connectors, shall be supplied	
4.7.0	<b>SAFETY PROTECTIONS</b>	The following safety protections shall be compulsorily provided: 1. Overload Protection. 2. Short Circuit Protection. 3. Dead Man Control. 4. Key Switch. 5. Hooter. 6. Charger Isolation. 7. Reverse Interlock. 8. Over Speed Protection. 9. Emergency Stop. 10. Carrying Capacity of each Trolley shall be clearly shown by fixing an engraved steel sign-board on either sides of the Trolley.	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

<b>S.No.</b>	<b>PARTICULARS</b>	<b>BHPV SPECIFICATIONS</b>	<b>VENDOR'S TECHNICAL OFFER (With Complete Details)</b>
<b>4.8.0</b>	<b>SURFACE CLEANING</b>	All the fabricated parts shall be de-rusted and degreased (by shot blasting or chemical treatment for surface cleaning), after completion of all operations but prior to painting.	
<b>4.9.0</b>	<b>PAINTING</b>	The Steel fabricated parts are to be painted as follows : a. One coat of Primer with 25 microns of DFT (Dry Film Thickness) and 48 hours of compulsory curing after painting. b. Two coats of Epoxy Paint (Colour – Golden Yellow) each with a DFT of 25 microns and intermittent curing of minimum 16 hours. c. The front and rear portions shall be painted yellow and black strips.	
<b>5.0.0</b>	<b>SPARES</b>	The BIDDER has to compulsorily quote item wise Mechanical, Electrical and Electronic Spares with Unit Rate, which are required for two years of continuous operation of the Transfer Car with the Remote Control Unit.	
<b>6.0.0</b>	<b>DOCUMENTS/DETAILS for APPROVAL</b>	The following documents and details are to be submitted for BHPV Approval, prior to taking up the manufacture of the Transfer Car.	
<b>6.1.0</b>	Drawings and Documents	<ul style="list-style-type: none"> <li>a. GA Drawing of the Transfer Car / Trolley.</li> <li>b. Trolley Dimensional Drawing.</li> <li>c. Sub-Assembly Drawing for Wheel &amp; Axles, Gear Boxes, etc.</li> <li>d. Calculations for Selection of Electric Motor and Gear-Box.</li> <li>e. Electrical Drawings.</li> <li>f. Schematic Drawing of Trolley Controls.</li> <li>g. Battery Charger Schematic Drawing.</li> <li>h. Total Weight of the Transfer Car including all Electrical Equipment.</li> </ul>	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

<b>S.No.</b>	<b>PARTICULARS</b>	<b>BHPV SPECIFICATIONS</b>	<b>VENDOR'S TECHNICAL OFFER (With Complete Details)</b>
<b>7.0.0</b>	<b>O &amp; M MANUALS</b>	Each Transfer Car shall be provided with a. Complete set of Tools required for Operational Maintenance, b. 3 Copies of Operation & Maintenance Manual hard copy & one soft copy in CD, [containing the following technical details, given under Clause <b>Sl. No. 7.1.0</b> ]	
<b>7.1.0</b>	Drawings & Details	a. Trolley General Arrangement Drawing b. Assembly Drawing for Wheel & Axle, Gear Box Assembly, etc. c. Electric Wiring Schematics d. Detailed Wiring Diagram for Sub-Systems / Control Panels e. Battery Charger Schematic Drawing. f. Specifications / Ratings of All Bought-Out Items g. Warranty / Guarantee Card for all the Bought-Out Items h. Trouble Shooting Chart for all Systems i. List of Spares – both Mechanical and Electrical	
<b>8.0.0</b>	<b>INSPECTION</b>	Schedule of Inspection : a. Verification of Test Certificate for Raw Materials used for fabrication. b. Verification of X-Ray Report of Butt-Joints and Random Testing of the Welds, by physical examination. c. Verification of Transfer Car Dimensions, Checking of Wheel Alignment, Mechanical Assemblies and Total Alignment. d. Full / Rated Load Test and Deflection Test. e. Deflection and Permanent Setting Measurement f. Speed / Traverse Motion Testing with and without load g. 10% OVER-LOAD Carrying Ability Check.	

**TECHNICAL SPECIFICATION FOR POWERED MOVEMENT TROLLEY (50 T) PART B**

S.No.	PARTICULARS	BHPV SPECIFICATIONS	BIDDER/VENDOR's OFFER
<b>9.0.0</b>	<b>ERECTION &amp; COMMISSIONING</b>		
<b>9.1.0</b>	Mechanical Erection / Assembly	Erection / Assembly of the Transfer Car has to be done by the Representative of the Supplier, at BHPV Works	
<b>9.2.0</b>	Commissioning	Commissioning of the Transfer Car and Performance Prove –Out for the Trolley's Capacity and Smooth Running (at BHPV Works) shall be the RESPONSIBILITY of the supplier.	
<b>10.0.0</b>	<b>PERFORMANCE GUARANTEE</b>	The Performance of the Transfer Car and/or the Components / Sub-Assemblies / Bought-Out-Items shall be guaranteed for a minimum period of twelve months from the date of performance acceptance at BHPV Works or 18 months from the date of supply whichever is earlier.	

**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, super scribing 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 up to Chennai port (for foreign bidders) Ex-works/FOR Dispatch Station price along with freight charges up to 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. Price bid opening date/ RA date will be considered as effective date for considering exchange rate to evaluate the offers.
- 5.4 **Terms of Delivery:** Bidders are required to quote their best delivery period. Foreign Bidders should submit their offer for net FOB/ FCA – Nearest Sea Port / Air Port as well as CFR / Chennai Seaport/ Airport. Freight charges up to Chennai port to be indicated separately. Indian Bidders should submit their offer for Dispatching station as well as FOR BHPV Visakhapatnam basis. Freight charges from works to BHPV Visakhapatnam to be indicated separately. Delivery from the date of Letter of Intent 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 dated 24.08.1968. CST No.VSP/04/1/1012 dated 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 BHEL, Trichy on behalf of BHPV (Subsidiary of BHEL) will arrange for an irrevocable, usance Letter of Credit (60 days from date of dispatch) after receipt of Inspection release note and against presentation of documents for 80% of payment (80% of basic price + 100% Taxes). And balance 20% of payment will be made after acceptance of material/commissioning of the equipment at BHPV, Visakhapatnam and on submission of Performance Bank Guarantee.

**5.7.1.2 Documents to be submitted by Indian Bidders for negotiating LC:**

1. Original Invoice in triplicate in the name of BHPV.
2. Original LR in the name of the LC issuing Bank
3. Original packing list in triplicate in the name of BHPV.
4. Original Test certificate in triplicate in the name of BHPV.
5. Inspection release Note.
6. One original Bank guarantee, if applicable in favour of BHPV.
7. Certificate issued by the beneficiary certifying that the materials dispatched and shown in the packing list are not less than that invoiced.
8. Insurance for 100% of the commercial invoice value made out in the name of LC issuing bank, covering all risks.
9. Any other conditions/documents as mentioned in the Purchase Order.

**5.7.1.3 Additional conditions for Indian Bidders:**

1. **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 10% of the Purchase Order value.
2. In the event of delayed presentation of documents beyond the validity for negotiation(Subject to acceptance of documents by Applicant), 5% of invoice value will be retained towards demurrage and other charges and the difference if any between actual charges and recovery will be settled between BHPV and beneficiary outside the purview of LC terms.

**5.7.2 Foreign Bidders**

An Irrevocable letter of Credit shall be established by BHEL, Trichy on behalf of BHPV (Subsidiary of BHEL) for 80% of FOB/FCA/CFR/ (excluding Indian Agent's commission) 2 months prior to shipment with a validity of 3 months and negotiation after shipment against shipping documents. Letter of Credit shall be opened through an authorized bank of BHEL in India. 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 & commissioning of the equipment by sight draft against certificate issued by the competent authority.

**5.7.2.1 Documents to be submitted by Foreign Bidders for negotiating LC:**

1. Original Invoice in triplicate in the name of BHPV.
2. Original bill of lading in triplicate in the name of the LC issuing bank.
3. Original packing list in triplicate in the name of BHPV.
4. One original certificate of origin.
5. Original Test certificate in triplicate in the name of BHPV.
6. Inspection release Note.
7. One original Bank guarantee, if applicable in favour of BHPV.
8. Certificate issued by the beneficiary certifying that one copy of non-negotiable documents comprising Bill of Lading, Invoice, Packing List, Certificate of country of origin and Test certificate sent to Port consignee.
9. Certificate issued by the beneficiary certifying that the materials shipped and shown in the packing list are not less than that invoiced.
10. Insurance for 110% of the commercial invoice value made out in the name of LC opening bank, covering all risks, clearly mentioning the name of claim settling agent in India. The claims will be settled in the same currency as that of LC.
11. Any other conditions/documents as mentioned in the Purchase Order.

**5.7.2.2 Additional conditions for Foreign Bidders:**

1. **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 10% of the Purchase Order value.
2. In the event of delayed presentation of documents beyond the validity for negotiation (Subject to acceptance of documents by Applicant), 5% of invoice value will be retained towards demurrage and other charges and the difference if any between actual charges and recovery will be settled between BHPV and beneficiary outside the purview of LC terms.

**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.

- 5.7.4 Loading criteria common to both Indian and foreign bidders:** Vendor should accept the payment terms specified above. However for any deviation to the payment terms offered with reference to the above criterion will be loaded with prime lending rate of SBI prevailing on date of opening of price bid + %, which shall be computed for the differential period between BHPV terms of payment and the offered payment terms by vendor.

- 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 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier.  
**Offers from vendors not accepting to the requested guarantee period will be rejected.**
- 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.  
**Offers from vendors not accepting to submit CEBG will be rejected.**
- 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 guarantee with additional claim period of 2 months.  
**Offers from vendors not accepting to submit PBG will be rejected.**  
The CEBG & PBG shall be obtained from any Indian Nationalized Bank/ Scheduled Commercial Banks.
- 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 10% of the Purchase Order value.
- 5.12.1 **Loading Criteria for Liquidated Damages:** Any deviation from above LD Clause to the extent for which LD is not agreed by the vendor i.e., differential % value will be loaded on basic price, e.g. If some vendor agrees for say maximum of 6% LD then his price will be loaded by 4% (10 – 6) of his quoted basic price.
- 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.  
**Offers from vendors not accepting the above Risk Purchase terms will be rejected.**
- 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 submissions 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 reserves 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 (REVERSE AUCTION)**

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.
- 5.26 **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 &amp; Conditions.

**Applicable for Indian bidders**

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

<b>BHPV Tender No: &amp; Date:</b>	Bidders Confirmation / response
Prices have been quoted on "FIRM PRICE" basis only (Yes / No)	
Prices have been quoted on "F.O.R BHPV" basis only (Yes / No)	
<b>P &amp; F (Please confirm whether included or not)</b>	
<b>Freight (Please confirm whether included or not)</b>	
<b>Insurance (Please confirm whether included or not)</b>	
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – <b>please Specify</b> )	
<b>Sales Tax (please Specify)</b>	
<b>Excise Duty (please Specify)</b>	
Delivery period from the date of Purchase Order ( <b>please Specify</b> ). 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 10%) (Yes / No)	
Risk Purchase as per clause 5.13 (Yes / No) <b>(Offers from vendors not accepting the Risk Purchase terms will be rejected)</b>	
Payment terms (As per Clause No. 5.7.1) (Yes / No)	
Contract Execution Bank Guarantee (CEBG) as per Clause 5.10 (Yes / No) <b>(Offers from vendors not accepting to submit CEBG will be rejected)</b>	
Performance Bank Guarantee (PBG) as per Clause 5.11 (Yes / No) <b>(Offers from vendors not accepting to submit PBG will be rejected)</b>	
Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier) (Yes / No) <b>(Offers from vendors not accepting to the guarantee period will be rejected)</b>	
<b>Inspection (please Specify the Place of Inspection)</b>	
Erection & Commissioning/ Installation/ Training <b>(Please confirm whether charges are included in the total cost or not)</b>	
Approximate Net Weight of the total Consignment	
Approximate Gross Weight of the total Consignment	

Signature &amp; Office Seal of the bidder

**CHECK LIST**

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

**Applicable for foreign bidders** (To be submitted along with the offer – please do not change the format)

<b>BHPV Tender No: &amp; Date:</b>	<b>Bidders Confirmation / response</b>
Prices have been quoted on "FIRM PRICE" basis only (Yes / No)	
Prices basis (FOB/CFR/CIF – <b>Please Specify</b> )	
Insurance ( <b>Please confirm whether included or not</b> )	
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – <b>please Specify</b> )	
Currency in which quoted ( <b>please Specify</b> )	
Port of loading ( <b>please Specify</b> )	
Country of Origin ( <b>please Specify</b> )	
Delivery period from the date of Letter of Intent ( <b>please Specify</b> ) 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 10%)	
Risk Purchase as per clause 5.13 ( <b>Offers from vendors not accepting the Risk Purchase terms will be rejected</b> ) (Yes / No)	
Payment terms (As per Clause No. 5.7.2)	
Agency commission (refer clause 5.14)	
Contract Execution Bank Guarantee (CEPG) as per Clause 5.10 (Yes / No) ( <b>Offers from vendors not accepting to submit CEBG will be rejected</b> )	
Performance Bank Guarantee (PBG) as per Clause 5.11 (Yes / No) ( <b>Offers from vendors not accepting to submit PBG will be rejected</b> )	
Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier). ( <b>Offers from vendors not accepting to the requested guarantee period will be rejected</b> ) (Yes / No)	
Inspection ( <b>please Specify</b> )	
Erection & Commissioning/ Installation/ Training ( <b>Please confirm whether charges are included in the total cost or not</b> )	
Dimension of the Largest Part ( <b>please Specify</b> )	
Packing Schedule (No of containers and their Sizes) ( <b>please Specify</b> )	
Approximate Net Weight of the total Consignment ( <b>please Specify</b> )	
Approximate Gross Weight of the total Consignment ( <b>please Specify</b> )	

Signature &amp; Office Seal of the bidder