

BHARAT HEAVY PLATE & VESSELS LIMITED.,
(A Subsidiary Bharat Heavy Electricals Limited)
A Government of India Enterprises
Visakhapatnam – 530 012 INDIA.
web site: www.bhpvl.com



Phone : +91(0891) 6681309, 494
+91(0891) 6681396
Fax : +91(0891) 6681700
E-Mail : skmishra@bhpvl.com,

NOTICE INVITING TENDER(NIT)

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

SUB: 150 Ton Drum Rotators

Our Ref: **MM/2/10/3171/CAP/W-109/5113**

DATE: 10.08.2012

Sealed quotations in duplicate are invited from suppliers on **or before 14.09.2012** **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. | 150 Ton Drum Rotators | 2 Sets |
| | Encl: 1. Qualifying Criteria PART A 4 pages 2. Technical Specifications PART B 7 Pages 3. General Terms/ commercial terms and conditions 10 pages (INCLUDING CHECK LIST) | |

For BHARAT HEAVY PLATE & VESSELS LIMITED,

For Dy. GENERAL MANAGER (MM)

SECTION – I : QUALIFYING CRITERIA

The BIDDER has to compulsorily meet the following requirements to get qualified for considering the technical offer:

| S.No. | REQUIREMENTS | VENDOR's RESPONSE |
|-------|--|-------------------|
| 1 | Only those vendors (OEMs), who have designed, supplied and commissioned at least FIVE SETS OF VARIABLE SPEED ROTATOR for a Capacity of 150 T or higher in the past ten years (from the date of opening of Tender) and such machine is presently working satisfactorily for more than one year after commissioning (from the date of opening of Tender) should quote. However, if such machine had already been supplied to BHPV / BHEL, then that machine should be presently working satisfactorily for more than six months after it's commissioning and acceptance (from the date of opening of Tender). | |
| | The vendor should submit following information where similar machine has been supplied for qualification of their offer. | |
| 1.1 | Name and postal address of the customer or company where similar machine is installed. | |
| 1.2 | Name and designation of the contact person of the customer. | |
| 1.3 | Phone, FAX no and email address of the contact person of the customer. | |
| 1.4 | Month and Year of commissioning of the machine. | |
| 1.5 | Application for which the machine is supplied | |
| 1.6 | Along with the Technical offer, the Vendor should submit one Performance certificate from the customer for the satisfactory performance of the machine supplied to them. For obtaining the Performance certificate, a suggestive format is provided in SECTION – IV . | |
| 1.7 | 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. | |
| 2.0 | DELIVERY - The bidder shall quote the best possible delivery. However the delivery shall not exceed 5 months. with an additional grace period of 2 months. The additional grace period will attract a penalty which is explained in the commercial terms of the enquiry. The delivery period shall be reckoned from date of purchase order to despatch from the vendor works. | |

SECTION – I I

The BIDDER / VENDOR is requested to provide the following information:

| S.No. | REQUIREMENTS | VENDOR's RESPONSE |
|--------------|--|------------------------------|
| 3.0 | The BIDDER/VENDOR to furnish Reference List of Customers, with full address, details of contact person, where Variable Speed Rotator have been supplied in the past. | |
| 4.0 | Details of Variable Speed Rotator supplied to other BHPV / BHEL units, if any. (Year of commissioning, Capacity) | |
| 5.0 | 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] | |
| 6.0 | Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment. | |

SECTION – III

The BIDDER to note:

| S.No. | REQUIREMENTS | VENDOR's RESPONSE |
|-------|---|-------------------|
| 7.0 | The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B] & commercial offer 2. Price Bid. | |
| 8.0 | The Technical Offer shall contain a comparative statement of Technical Specifications demanded by BHPV and Offer Details submitted by the Bidder , against each clause. A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement where specific details are required may lead to disqualification of the Technical Offer. | |
| 9.0 | The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought-Out-Items with copies of Product Catalogue to the extent possible. | |
| 10.0 | 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. | |

SECTION – IV

The performance certificate should be produced **on Customer's Letter Head.**

PERFORMANCE CERTIFICATE

| | | |
|---|--|---------------------------------|
| 1. | Supplier of the Rotators | |
| 2. | Make & Model of the M/C | |
| 3. | Month & Year of Commissioning | |
| 4. | Application for which M/C is used | |
| 5. | a) Length b) Width c) Load Carrying Capacity | |
| 6. | Performance of the Machine (Strike off whichever is not applicable) | Satisfactory / Not Satisfactory |
| 7. | After sales service (Strike off whichever is not applicable) | Satisfactory / Not Satisfactory |
| 8. | Any Other remarks | |
| 9. | Contact Details Name of the Contact Person Phone No. Fax No. E-mail ID | |
| <div style="display: flex; justify-content: space-between; align-items: flex-end; padding: 10px;"> <div>Date:</div> <div>Signature & Seal of the Authority Issuing the Performance Certificate</div> </div> | | |

TECHNICAL SPECIFICATION FOR DRUM SHELL ROTATORS – 150 T (PART B)

Page 1 of 7

TECHNICAL SPECIFICATIONS FOR ELECTRONICALLY CONTROLLED VARIABLE SPEED JOB ROTATORS [with TWIN DRIVE SYSTEM] – 150 T

| S.No. | PARTICULARS | BHPV SPECIFICATIONS | VENDOR's TECHNICAL OFFER (With Complete Details) |
|-------|---|---|--|
| 1.0 | APPLICATION | <ul style="list-style-type: none"> a. For use in heavy fabrication of Pressure Vessels, Heat Exchangers and Boiler Drums, which are cylindrical in shape and welded with attachments and nozzles. b. The Rotator has to be supplied in pair with one Drive Unit and one Idler Unit, in combination to help to rotate the job in either direction. | |
| 2.0 | SCOPE OF SUPPLY | <ul style="list-style-type: none"> a. Detailed Design, Manufacture and supply as per BHPV SPECIFICATIONS. b. Assembly and Testing before Dispatch c. Supply of Electric & Mechanical Spares d. Erection (Assembly), Commissioning and Performance Prove-Out at BHPV e. Training on Maintenance for BHPV Staff f. Performance Guarantee for 12 months, from the date of commissioning. g. O & M Manuals and related documents | |
| 3.0 | TECHNICAL SPECIFICATIONS / ROTATOR DRIVE UNIT | | |
| 3.1 | Carrying Capacity | 100 Metric Tons (minimum capacity for design) | |
| 3.2 | Rotating Capacity | 150 Metric Tons | |
| 3.3 | Eccentric Loading | 20 % of the Job Weight | |
| 3.4 | Wheel Surface Speed | 60 mm to 1200 mm / minute, with step less speed variation | |
| 3.5 | Wheel Drive Mechanism | Electronically Controlled Drive System giving mechanical drives for each wheel through independent electric motor. | |
| 3.6 | Electric Motor & Drive | AC Motor with suitable Variable Speed Drive, to take care of eccentric loading with feedback system and synchronization for uniform job rotation. | |
| 3.7 | Rotator Operation | Through Main Control and Remote Control with option for control selection | |
| 3.8 | Remote Control Unit | A hand held remote control box with 15 M long cable to be provided for Speed Variation, ON & OFF, Emergency Off, Forward & Reverse Rotation functions | |
| 3.9 | Electro - Mechanical Drive Details | BIDDER to give details on the mode of power transmission from the electric motor to the gear-box driving the rotator wheel along with offer. | |
| 3.10 | Gear Box Details | BIDDER to furnish complete technical details of the Gear Box used for mechanical power transmission. BHPV prefers vendor to use standard gear boxes rather than built in gear boxes. Planetary Gears not permitted | |

TECHNICAL SPECIFICATION FOR DRUM SHELL ROTATORS – 150 T (PART B)

Page 2 of 7

| S.No. | PARTICULARS | BHPV SPECIFICATIONS | VENDOR's TECHNICAL OFFER (With Complete Details) |
|------------|---|---|--|
| 4.0 | TECHNICAL SPECIFICATIONS / ROTATOR IDLER UNIT | | |
| 4.1 | Carrying Capacity | 100 Metric Tons (minimum capacity for design) | |
| 4.2 | Eccentric Loading | 20 % of the Job Weight | |
| 4.3 | Earth Return Arrangement | To provide 1200 amps. (DC) Earth Return Arrangement contacting Idler Unit's Steel Wheels, as welding is the main operation for which the rotators are intended. Vendor to provide details along with offer. | |
| 5.0 | GENERAL FEATURES / INPUTS for DESIGN & FABRICATION | | |
| 5.1 | Diameter Range of Job | 800 mm to 4000 mm – Outer Diameter | |
| 5.2 | Weight of Job | Ranging from 20 Ton to 150 Tons | |
| 5.3 | Wheel Diameter | 1050 mm | |
| 5.4 | Wheel Material | Solid Steel Forging | |
| 5.5 | Wheel Width at surface | 150 mm (maximum) with crowning surface profile | |
| 5.6 | Wheel Contact Surface Hardness | 300-350 BHN | |
| 5.7 | Wheel Surface Profile | Crowning Surface | |
| 5.8 | Wheel Adjustment | Each wheel assembly with Housing/Bracket and Integral Drive Unit shall be movable on the Rotator Base Frame, through a fixed speed motorized driven screw-rod in Drive Unit and hand driven screw-rod in Idler Unit. It shall be possible to locate and lock each wheel assembly on the Rotator Base Frame at required pitches to cover the job diameter range. The drive arrangement to be designed to avoid loading on the screw-rod while loading / after loading the job on the wheels. | |
| 5.9 | Hardness and finish of Base frame slide | The sliding surfaces of the base frame in Drive and idler units shall be hardened and machined. | |
| 5.10 | Wheel Alignment | The alignment of the wheel face in the plane perpendicular to the wheel shaft axis to be maintained within 1mm for the entire stroke of the wheel assembly positions on the base frame. | |
| 5.11 | Wheel Positioning | There shall be suitable provision for locking the wheel assembly with the base frame, to prevent movement under working/loading conditions. | |
| 5.12 | Wheel Shaft Assembly | The high grade shafts are to be shrink fit into wheel assemblies / with shrink disc, to eliminate the provision of key arrangement | |

TECHNICAL SPECIFICATION FOR DRUM SHELL ROTATORS – 150 T (PART B)

| S.No. | PARTICULARS | BHPV SPECIFICATIONS | VENDOR's TECHNICAL OFFER (With Complete Details) |
|-------|----------------------|---|--|
| 5.13 | Wheel Support | Wheels are to be supported on Heavy Duty Roller Bearings | |
| 5.14 | Lifting Hook | Four numbers of Lifting Hook are to be provided at suitable locations for facilitating lifting the entire rotator unit by EOT Crane in a geometrically balanced state. | |
| 5.15 | Cover for Gears | Suitably profiled steel outer-covers (with easily replaceable provisions) are to be provided for the spur gears, to protect from welding flux, slag and other foreign particles, while in operation. The thickness of the cover plate shall be minimum 3mm. | |
| 5.16 | Cover for base frame | Suitably profiled steel covers (with easily replaceable provisions) are to be provided to cover the sliding surface (top face) of the base frame, to protect from welding flux, slag and other foreign particles falling on it, while in operation. The thickness of the cover plate shall be minimum 3mm. | |
| 5.17 | Job Temperature | The ROTATORS will be used in the Fabrication Shop floors, where the jobs are pre-heated to a temperature of maximum 200 ° C and hence the mechanical parts coming in contact with the jobs are to be designed to withstand this high temperature. | |
| 5.18 | Electric Power Input | Electric Input Power through a 3 Phase AC, 415 ± 10% V, 50 ± 2% Hz, 3 Wire System with 4th Wire for Protective Earthing. | |
| 5.19 | Ambient Condition | Indoor Working Environment with temperature up to 50 ° C and Humidity up to 85 %, but both not occur simultaneously. Hence, the offered equipment shall be of tropicalised in design. | |
| 5.20 | Control Voltage | Bidder to Specify [preferably 24 V] | |
| 5.21 | Bought-Out Items | <ul style="list-style-type: none"> a. BIDDER has to list down all the Bought- Out Items and their makes / brand names with technical specifications. b. Bought-Out Items / Components supplied make shall be ABB / SIEMENS / GE / BALDOR for Electric Motors and TIMKEN / FAG / SKF for Bearings. c. The variable speed drive shall be of ABB / SIEMENS / ALLEN BRADLEY make. d. The Gear boxes shall be of Greaves / Elecon / Bonfiglioly. | |

TECHNICAL SPECIFICATION FOR DRUM SHELL ROTATORS – 150 T (PART B)

| S.No. | PARTICULARS | BHPV SPECIFICATIONS | VENDOR's TECHNICAL OFFER (With Complete Details) |
|------------|--|---|--|
| 6.0 | STRUCTURAL FABRICATION | | |
| 6.1 | Rotator Base Frame and Wheel Bracket / Housing | Heavy Steel Fabrication Procedures to be followed. The Base Frame work shall be with steel plates of minimum 40 mm thickness, including REINFORCING RIBS. | |
| 6.2 | Raw Material | Only steel plates tested and certified for quality by reputed inspection authorities, shall be used. Test Certificates to be produced for BHPV verification and form part of the documentation. | |
| 6.3 | Welded Joints | No Butt Joints are allowed for Plate Build-Up to increase effective length | |
| 6.4 | Welding Electrodes | For all Welding E 7018 Electrode/higher grade shall be used. | |
| 6.5 | Welded Joint Testing | All Fillet Welded Joints shall be subjected to Non Destructive Testing like Liquid Penetrant Test (LPI) and Magnetic Particle Inspection (MPI). Testing Documents to be produced for BHPV evaluation and form part of the documentation. Random MPI / LPI to be shown to BHPV inspectors at the time of inspection at vendor's works. | |
| 6.6 | Heat Treatment & NDT Examination | The Structural Items (Base Frame / Wheel Housing, etc.) shall be Stress Relieved by thermal heat-treatment process after welding and NDT examinations. All weldings shall be tested by NDT means [MPI or LPI] after Stress Relieving operation. | |
| 6.7 | Machining Operation | All mechanical mating sliding surfaces are to be machined to the required finish after heat treatment and protected | |
| 6.8 | Surface Cleaning | All steel parts are to be shot blasted or chemically treated for surface cleaning, after completion of all operations but prior to painting. | |
| 6.9 | Painting | The ROTATORS are to be painted as follows : a. One coat of Primer (Zinc Chromate) with 25 μ of DFT (Dry Film Thickness) and 48 hours of compulsory curing after painting. b. Two coats of Enamel Paint [Ethyl Zinc Silicate of Colour Apple Green] each with a DFT of 25 μ and intermittent curing of 16 hours. | |
| 6.10 | Frame Dimensions | BIDDER has to indicate the tentative DIMENSIONS for the Base Frame of Drive and Idler Units and Wheel Brackets, to check for the operational suitability at BHPV Works. | |

TECHNICAL SPECIFICATION FOR DRUM SHELL ROTATORS – 150 T (PART B)

| S.No. | PARTICULARS | BHPV SPECIFICATIONS | VENDOR's TECHNICAL OFFER (With Complete Details) |
|------------|--|--|---|
| 7.0 | SPARES SUPPLY | | |
| 7.1 | Spares | <p>BIDDER to Quote for the following spares along with the rotator:</p> <ul style="list-style-type: none"> a) Bearings for each wheel assembly – 2 Sets. b) Seals, gaskets & Belts used in the Rotator – 1 Set. c) Pulleys & Couplings used in the Rotator – 1 Set. d) Variable Frequency AC Drive – 1 No. | |
| 8.0 | DRAWINGS / DOCUMENTS / DETAILS: | | |
| 8.1 | Drawings and Documents for Evaluation: | <p>The following documents and details are to be submitted along with offer for technical evaluation of the ROTATORS.</p> <ul style="list-style-type: none"> a. GA Drawing of the ROTATOR. b. GA Drawing of Wheel Drive Mechanism c. GA Drawing of Electric/Electronic System. d. Sub-Assembly Drawing for Wheels. e. Calculations for Selection of Electric Motors, Gear Reducers, etc. f. Weight of the ROTATOR (Drive Unit & Idler Unit separately) including all Electrical Equipment. <p>Note: All the drawings should have the major & critical dimensions and list of bought out items with make and specification.</p> | |
| 8.2 | Drawings and Documents for Approval: | <p>The following documents and details are to be submitted for BHPV Approval, prior to taking up the manufacture of the ROTATORS.</p> <ul style="list-style-type: none"> a. GA Drawing of the ROTATOR. b. GA Drawing of Wheel Drive Mechanism. c. GA drawing of wheel shifting mechanism in Drive & Idler Units. d. GA Drawing of Electric/Electronic System. e. Sub-Assembly Drawing for Wheels. f. Calculations for Selection of Electric Motors, Gear Reducers, etc. g. Wiring Diagram with Logic Circuits. h. Weight of the ROTATOR (Drive Unit & Idler Unit separately) including all Electrical Equipment. <p>Note: All the drawings should have the major & critical dimensions and list of bought out items with make and specification.</p> | |

TECHNICAL SPECIFICATION FOR DRUM SHELL ROTATORS – 150 T (PART B)

Page 6 of 7

| S.No. | PARTICULARS | BHPV SPECIFICATIONS | VENDOR's TECHNICAL OFFER (With Complete Details) |
|-------|--|--|--|
| 8.3 | Drawings and Documents along with Equipment supply: (O & M MANUALS) | <p>Each ROTATOR shall be provided with THREE Copies of Erection / Assembly, Operation & Maintenance Manual, containing the following technical details :</p> <ol style="list-style-type: none"> General Arrangement and Sub-assembly Drawings Electrical Wiring Schematics Detailed Wiring Diagrams for Control Panels and Remote Control Rotator Wheel Sub- Assembly Drawing Gear Box Details / Drawings. Specifications / Ratings of Bought-Out Items Warranty Card for all Bought-Out Items Trouble Shooting Chart for all Sub-Systems Variable speed Drive manual. Mechanical manufacturing drawings for all wearing components. Operation & Maintenance manual with complete specification of the equipment and Preventive Maintenance check list. <p>Note:</p> <ol style="list-style-type: none"> One soft copy of the entire documents stated above to be provided in Pen drive. One Hard copy and one soft copy to be submitted at the time of inspection at suppliers works for checking the sufficiency of the documents. If any additional requirements are found needed for maintenance, it should be provided. | |
| 9.0 | INSPECTION | <p>The following Schedule of Inspection is to be carried out, prior to dispatch from the Supplier's Works :</p> <ol style="list-style-type: none"> Verification of Test Certificate for Raw Materials & Bought-Out Items used. Random Testing on the Welds, by physical examination and NDT. Wheel alignment as per clause 5.10. Idle Run Test and Test under simulated conditions (on mutually agreed norms). Verification of O&M Manuals as per clause 8.3. | |

TECHNICAL SPECIFICATION FOR DRUM SHELL ROTATORS – 150 T (PART B)

| S.No. | PARTICULARS | BHPV SPECIFICATIONS | VENDOR's TECHNICAL OFFER (With Complete Details) |
|-------------|---|--|--|
| 10.0 | ROTATOR ERECTION & COMMISSIONING | | |
| 10.1 | Erection / Assembly | Erection / Assembly of the ROTATORS will have to be done by the Qualified Technical Representative of the Supplier at BHPV Works | |
| 10.2 | Commissioning | Commissioning of the ROTATOR and Performance Prove –Out for Carrying & Rotating Capacity and Smooth Functioning of the ROTATOR (at BHPV Works) shall be the RESPONSIBILITY of the supplier. | |
| 11.0 | PERFORMANCE GUARANTEE | The Performance of the ROTATOR in Total and / or the Components / Sub-Assemblies / Bought-Out-Items shall be guaranteed for a period of 12 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.
- 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
- 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 & 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 |
|---|--|
| Prices have been quoted on "FIRM PRICE" basis only. | Yes / No |
| Prices have been quoted on "F.O.R BHPV" basis only. | Yes / No |
| P & F and Freight (To be Included in Vendor's Scope) | |
| Insurance (Please confirm whether included or not) | |
| Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – please Specify) | |
| Sales Tax (please Specify) | |
| Excise Duty (please Specify) | |
| Delivery period from the date of Purchase Order (please Specify). 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 (Offers from vendors not accepting the Risk Purchase terms will be rejected) | Yes / No |
| Payment terms (As per Clause No. 5.7.1) | |
| Contract Execution Bank Guarantee (CEBG) as per Clause 5.10 (Offers from vendors not accepting to submit CEBG will be rejected) | Yes / No |
| Performance Bank Guarantee (PBG) as per Clause 5.11 (Offers from vendors not accepting to submit PBG will be rejected) | Yes / No |
| 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). (Offers from vendors not accepting to the guarantee period will be rejected) | Yes / No |
| Inspection (please Specify) | |
| Erection & Commissioning/ Installation/ Training (Please confirm whether charges are included in the total cost or not) | |
| Approximate Net Weight of the total Consignment | |
| Approximate Gross Weight of the total Consignment | |

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 |
| Prices have been quoted on "FIRM PRICE" basis only. | Yes / No |
| Prices have been quoted on "F.O.R BHPV" basis only. | Yes / No |
| P & F and Freight | |
| Insurance (Please confirm whether included or not) | |
| 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) | |
| Sales Tax (please Specify) | |
| Excise Tax (please Specify) | |
| Delivery period from the date of Letter of Intent (please Specify) | |
| 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 (Offers from vendors not accepting the Risk Purchase terms will be rejected) | Yes / No |
| Payment terms (As per Clause No. 5.7.2) | |
| Agency commission (refer clause 5.14) | Acceptable / Not acceptable |
| Contract Execution Bank Guarantee (CEPG) as per Clause 5.10 (Offers from vendors not accepting to submit CEBG will be rejected) | Yes / No |
| Performance Bank Guarantee (PBG) as per Clause 5.11 (Offers from vendors not accepting to submit PBG will be rejected) | Yes / No |
| 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). (Offers from vendors not accepting to the requested guarantee period will be rejected) | Yes / No |
| Inspection (please Specify) | |
| Erection & Commissioning/ Installation/ Training (Please confirm whether charges are included in the total cost or not) | |
| Approximate Net Weight of the total Consignment | |
| Approximate Gross Weight of the total Consignment | |

Signature & Office Seal of the bidder