HMB RPD

SPECIFICATIONS OF CABLES FOR TROLLEY LINES FOR WAGON PUSHER, VSP. VIZAG

DAP - 329/11M W/O NOS. - 0116.003.110 SHEET 1 OF 4

HEAVY MACHINE BUILDING PLANT
HEAVY ENGINEERING CORPORATION LIMITED
(A GOVT. OF INDIA ENTERPRISE)
RANCHI -834 004 (INDIA)

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TENDER NO.HMBP/PUR/2011/961745/EL/3090 DATED THE 9TH JANUARY ,2012

Dear Sir, de montage de

We request you to submit your most competitive offer for the following items / services as per the given schedule : ENQUIRY SCHEDULE

SL. MATL.CODE DESCRIPTION OF ITEMS/STORES UNIT OF NOS. OF UNIT NO.

MEASUREMENT REQUIRED

SUPPLY OF CABLES FOR TROLLEY
LINES FOR MACRON LAND. QUOTATION IS INVITED FOR PLEASE REFER THE ENCLOSED DAP NO.
329/11M FOR DETAILED TECHNICAL
SPECIFICATIONS & OTHER DETAILS

NOTE : TENDERER MUST NOTE THAT THE CABLES ONLY OF THE FOLLOWING MAKES SHALL BE ACCEPTABLE:

MAKE: RPG,UNIVERSAL,CCI,NICCO,TORRENT,INDUSTRIAL,POLYCAB,FINECAB, INCAB,RADIANT,CRYSTAL, KEI,SPECIAL

SCHEDULE OF TENDER RECEIPT: BY 30/01/2012, UPTO 1.00P.M OPENING OF TENDER: ON 30/01/2012, AT 3.00P.M

PLEASE SUBMIT QUOTATION IN SEALED COVER PLEASE SUBMIT GOUTHITOSYSTEMS i.e STRICTLY IN THREE BID SYSTEMS i.e I) TECHNO-COMMERCIAL BID I) TECHNO-COMMERCIAL BID

II) PRICE BID AND

III) EARNEST MONEY DEPOSIT

ALSO GIVE THE UN-PRICED SCHEDULE OF QUOTED

ITEMS (ITEM WISE) WITH YOUR TECHNOCOMMERCIAL BID. AND ALL THE THREE SEALED
COVERS MUST BEAR AT ITS TOP ABOUT THE ENGUIRY
NO. & DATE, DUE DATE OF TENDER OPENING.

TERMS AND CONDITIONS::

The rate quoted shall be on FOR: Destination i.e. Store/HMBP/HEC Ltd., to odd to 1 com Ranchi-4 basis.

The Price quoted by the tenderer should be exclusive of sales tax. The 2. The Price quoted by the tenderer should be exclusive or sales tax. The rate and nature of sales tax applicable should be shown separately. Sales Tax will be paid to the seller at the rate at which it is liable to be assessed or has actually been assessed on the date of supply provided the transaction of sale is legally liable to sales tax and within the delivery period. Any change on the taxes & duty structure beyond the delivery period will not be considered by HEC.

The rates quoted must be firm and the offers made must remain open for 3. acceptance for minimum four months from the date of opening of the

tender. Quotations erased or over written are likely to be rejected unless all corrections are authenticated with the tenderer's signature.

5. Delivery date offered must be specified and guaranteed.

HMB RPD

SPECIFICATIONS OF CABLES FOR TROLLEY LINES FOR WAGON PUSHER, VSP. VIZAG

DAP - 329/11M W/O NOS. - 0116.003.110 SHEET 2 OF 4

100% OF THE TOTAL ORDER VALUE ALONGWITH HUNDRED PER-PAYMENT TERMS: CENT TAXES AND DUTIES SHALL BE RELEASED THROUGH CHECLE WITHIN 30 DAYS OF CENT TAXES AND DUTIES SHALL BE RELEASED THROUGH CHEGUE WITHIN 30 DAYS OF RECEIPT OF MATERIALS COMPLETE IN ALL RESPECT ALONGWITH GUARANTEE CERTIFICATE, TEST CERTIFICATE, CRV/IMSPECTION CERTIFICATE (TO BE ISSUED BY HEC), ORIGINAL INVOICE AND 10% PERFORMANCE BANK GUARANTEE TO BE WALID TILL FULL GUARANTEE PERIOD FROM ANY NATIONALIZED BANK ONLY IN HEC'S FORMAT AND ALL THE RELEVANT DOCUMENTS AS PER ENQUIRY SPECIFICATION.
Full particulars i.e. specification, literature and / or drawing wherever applicable should be submitted alongwith the quotation. The brand and "Make" name must be Indicated.
The Corporation does not pledge itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of tender or portion of the quantity offered and you shall supply

8. part of tender or portion of the quantity offered and you shall supply the same at the rate quoted.

Supplies will be subject to Inspection by our Inspection wing / or our customer OR inspection agencies prescribed by us as per mutually agreed

Order placed as a result of this tender will be subject to the Corporation's General Terms and conditions of Contract which can be down 10.

loaded from our website (www.hecltd.com). Corporation reserves the right to call for and examine at any time the 11. books of accounts and other documents and papers of the firm purpose of ascertaining whether any excess payments has been made or the firm likely to be received / received undue benefit out of execution of the particular contract.

Earnest Money :- Earnest money to the extent of 2% of the total value will have to be deposited in the form of demand draft from any nationalised bank in favour of Heavy Engineering Corporation Ltd., payable at Hatia alongwith the Price-Bid. Only D/D No.and date should be mentioned in the Techno-Commercial Bid but the amount of D/D not to be

mentioned. NOTE: GUOTATIONS WITHOUT E.M.D SHALL NOT BE CONSIDERED.

Security Deposit- Successful tenderers will have to deposit in the form of DEMAND DRAFT/BANK GUARANTEE (From any nationalised Bank only) security equal to 5% (Five Percent) of the total basic order value within 21 days from the date of purchase order. NOTE: Failing this, the second of the suppliers of the suppliers. the contract will be cancelled at the risk and expense of the suppliers.

Delivery: The time for and the date of delivery of the Stores stipulated in the acceptance of tender shall be deemed to be the essence of the contract and delivery must be completed not later than the dates specified therein. Otherwise:

The purchaser to recover from the contractor a sum of 0.5% per week (completed week) of the price of the Stores (upto maximum 10%) as liquidated damages, which the contractor has failed to a) deliver as aforesaid or

The purchaser may procure the underlivered Stores/ similar items from elsewhere without notice to the contractor at the risk of the contractor without cancelling the contract in respect of the consignment not yet due for deliveryh or,

 c) to cancel the contract or a portion thereof.
 Guarantee: The material supplied shall be guaranteed for 12 months from the date of commissioning or 18 months from the date of delivery v 15. whichever is earlier.

Income Tax Clearance Certificate- All tenderers shall submit along with 16. their tender an Income Tax Clearance Certificate duly countersigned by the Income Tax Officer of the circle concered under the seal of the office. Copy of Parmanent Account No. (PAN) (of Invome Tax) to be enclossed with the bid.

17. Performance Bank Guarantee: PBG of 10% of the total basic order value s format from any nationalised bank will be submitted by the firm valid for the full Guarantee Period. NOTE: WITHOUT ACCEPTANCE OF THIS

CLAUSE, OFFER SHALL NOT BE CONSIDERED.

There is no obligation on our part to accept delayed / late tenders.

Tenders received after the due date of opening are liable to be sum-18. marily rejected.

The rates quoted shall also be the materials. The Ownership namely HMEP/FFP/HMTP should be at a predominant process the material to a size/thickness upon the volume of the materials. The rates quoted shall also be inclusive of embossing on the material. 19.

SR.DGM/PURCHASE/HMBP

HMB SPECIFICATIONS OF CABLES FOR RPD TROLLEY LINES FOR WAGON PUSHER, VSP, VIZAG

DAP - 329/11M W/O NOS. - 0116.003.110 SHEET 3 OF 4

1.0 **SPECIFICATION OF CABLES**:-

1.1 ARMOURED HRPVC ALUMINIUM CABLES FOR DSL POWER FEEDING:-

1100V Grade, multi-core, **armoured, HRPVC type C** insulated, aluminium cable, core laid up together provided with extruded HRPVC innersheath, galvanized round steel wire armouring and HRPVC outersheath. The conductor shall be stranded sector shaped or stranded compacted circular or stranded non compacted circular aluminium conductor confirming to IS: 8130-84, flexibility class – 2. The insulation shall be HRPVC type C and the sheath shall be ST – 2, HRPVC as per IS: 5831-84. The cable shall conform to the latest revision of IS: 1554 / part-1 / 1988. The cores shall be colored / numbered for core identification and interstices of the core shall be suitably filled up with non-hygroscopic material compatible with the type of insulation.

2.0 SCOPE OF SUPPLY:-

2.1 <u>Armoured, HRPVC insulated, class - 2, Aluminium cables of following sizes:</u>

| Sl. | Item code | Cable size in sq. mm. | Total Length |
|--------|------------|-----------------------|--------------|
| No. | | | |
| 2.1.1. | 5537100130 | 3.5 X 300 | 6,800 M |
| 2.1.2. | 5537100131 | 3 X 300 | 21,000 M |
| 2.1.3. | 5537100132 | 3.5 X 95 | 3,000 M |

3.0 INFORMATION ALONGWITH THE OFFER:

3.1 The tenderer must furnish data sheet as given in the format below for the cable.

| | CABLE DATA SHEET | | | | |
|-------|-----------------------------------|-----------------|----------------|--------------|---------------|
| Sl. | PHYSICAL | UNITS | 3.5C x 300 SQ. | 3C x 300 SQ. | 3.5C x 95 SQ. |
| No. | PARAMETERS | | MM. | MM | MM |
| 1 | Item Code | | 5537100130 | 5537100131 | 5537100132 |
| 2 | Voltage Grade | KV | 1.1 | 1.1 | 1.1 |
| 3 | Reference Standard | | IS-1554(Pt- | IS-1554(Pt- | IS-1554(Pt- |
| | | | 1),1988 | 1),1988 | 1),1988 |
| 4 | Type | | AYWY | AYWY | AYWY |
| 5 | Number of Cores | | 3.5 | 3 | 3.5 |
| 6 | Conductor | | - | - | - |
| 6.1 | Material as per IS: 8130 | | Aluminium | Aluminium | Aluminium |
| 6.2 | Nominal Cross- sectional Area | | - | - | - |
| 6.2.1 | Main Core | mm^2 | 300 | 300 | 95 |
| 6.2.2 | Reduced Neutral Core | mm ² | 150 | - | 50 |
| 6.3 | Flexibility Class as per IS: 8130 | | Class-2 | Class-2 | Class-2 |

HMB SPECIFICATIONS OF CABLES FOR TROLLEY LINES FOR WAGON PUSHER, VSP, VIZAG

DAP - 329/11M W/O NOS. - 0116.003.110 SHEET 4 OF 4

| 6.4 | Shape of the | | | | |
|-------|---|--------|---|---|---|
| 0.4 | Conductor | | _ | _ | - |
| 6.4.1 | Main Core | | * | * | * |
| | | | * | * | * |
| 6.4.2 | Reduced Neutral Core | | * | T | |
| 6.5 | No. & Nominal Diameter of Wire | | - | - | - |
| 6.5.1 | Main Core | No/mm | * | * | * |
| 6.5.2 | Reduced Neutral Core | No/mm | * | - | * |
| 7.0 | Insulation | | - | - | - |
| 7.1 | Material | | HRPVC Type C as per IS- 5831 | HRPVC Type C as per IS-5831 | HRPVC Type C as per IS-5831 |
| 7.2 | Min. Average(Nominal) Thickness | | - | - | - |
| 7.2.1 | Main Core | mm | * | * | * |
| 7.2.2 | Reduced Neutral Core | mm | * | * | * |
| 8 | Core Identification | | | | |
| 9 | Laying Up | | * | * | * |
| 10 | Inner Sheath | | _ | _ | _ |
| 10.1 | Material | | Extruded | Extruded | Extruded |
| | | | PVC,ST2 as per IS-5831 | PVC,ST2 as per IS-5831 | PVC,ST2 as per IS-5831 |
| 10.2 | Minimum Thickness | mm | * | * | * |
| 11 | Armouring | | - | - | - |
| 11.1 | Material as per IS: 3975 | | * | * | * |
| 11.2 | Nominal Diameter of Armour Wire | mm | * | * | * |
| 12 | Outer Sheath | | - | - | - |
| 12.1 | Material as per IS: 5831 | | Extruded PVC, ST2 as per 1S- 5831 | Extruded PVC, ST2 as per 1S- 5831 | Extruded PVC, ST2 as per 1S- 5831 |
| 12.2 | Minimum Thickness | mm | * | * | * |
| 12.3 | Colour of Outer Sheath | | Black | Black | Black |
| 13 | Overall Diameter of the cable | mm | * | * | * |
| 14 | Max. D.C. Resistance of the Conductor at 20°C | | | | |
| 14.1 | Main Core | Ohm/km | * | * | * |
| 14.2 | Reduced Neutral Core | Ohm/km | * | - | * |
| 15 | Recommended Continuous Current Ratings under Standard IS Conditions | | | | |
| 15.1 | In Ground at 30°C | A | * | * | * |
| 15.2 | In Duct at 30°C | A | * | * | * |
| | III Duct at 30 C | | | | |

| I | HMB | SPECIFICATIONS OF CABLES FOR | DAP - 329/11M |
|---|-----|--------------------------------------|----------------------|
| | RPD | TROLLEY LINES FOR WAGON PUSHER, VSP, | W/O NOS 0116.003.110 |
| | | VIZAG | SHEET 5 OF 4 |
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| 16 | Conductor | | _ | _ | _ |
|------|--|--------------|----|----|----|
| | Temperature | | | | |
| 16.1 | Continuous Operation | °C | 85 | 85 | 85 |
| 16.2 | Short Circuit | °C | * | * | * |
| 17 | Short Circuit Current Carrying capacity of Conductor | KA for 1 sec | * | * | * |
| 18 | Minimum Volume Resistivity of Insulation | | | | |
| 18.1 | At 27°C | Ohm-cm | * | * | * |
| 18.2 | At Operating Temperature of 85°C | Ohm-cm | * | * | * |
| 19 | Approx. A.C. Resistance | Ohm/Km | * | * | * |
| 20 | Approx. Reactance at 50 Hz | Ohm/Km | * | * | * |
| 21 | Approx. Impedance at 50 Hz | Ohm/Km | * | * | * |
| 22 | Approx. Capacitance | MicroF/Km | * | * | * |
| 23 | Recommended Minimum Bending Radius | mm | * | * | * |
| 24 | Approx. weight of Cable | Kg/Km | * | * | * |
| 25 | Voltage Drop | V/A/Km | * | * | * |
| 26 | De-rating Factors for Ambient Temperature Variation | Temp | - | - | - |
| 26.1 | | 45°C | * | * | * |
| 26.2 | | 50°C | * | * | * |
| 26.3 | | 55°C | * | * | * |
| 26.4 | | 60°C | * | * | * |

NOTE:- Column marked " * " should be filled up by the tenderer.

- 3.2 Make of cables shall be from the preferred make lists of M/S VSP only.
- 3.3 Cable length indicated are tentative and may change. Price per 100 meter may also be furnished by the tenderer. Any increase or decrease of cable length shall have to be taken care before placement of order.
- **3.4** Point wise confirmation of the enquiry specifications, listing out deviation, if any.

| HMB | SPECIFICATIONS OF CABLES FOR | DAP - 329/11M |
|-----|--------------------------------------|----------------------|
| RPD | TROLLEY LINES FOR WAGON PUSHER, VSP, | W/O NOS 0116.003.110 |
| | VIZAG | SHEET 6 OF 4 |
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4.0 <u>Inspection and Tests</u>:-

4.1 Inspection and tests shall be as per **mutually agreed "QAP"** between tenderer and HEC/VSP/DCO's.

5.0 <u>Documents</u>:-

- 5.1 After award of order, within two weeks, the firm shall have to submit cable data sheets by the firm in 12 sets for approval from M/s VSP / DCO's.
- 5.2 After approval of the cable data sheets, the firm shall have to submit further 12 sets of prints to M/s VSP / DCO's as a distribution copies.