

**BHARAT HEAVY ELECTRICALS LIMITED
BHEL ESTATE OFFICE**

**BHEL- TOWNSHIP, SECTOR-17
NOIDA- 201301**



**TENDER DOCUMENT
FOR
SUPPLY OF POWER CABLES
IN BHEL TOWNSHIP, SECTOR-17, NOIDA.**

**NIT NO.-50:AA:NOI:ADMN.: Power Cables:112:2010-11
Dated : 09/03/2011**

CONTENTS

1. Notice Inviting Limited tender
2. Techno commercial Bid – Part -A
3. Price Bid – Part B

Last date for Submission : 23/03/2011 at 1500



भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd.

सम्पदा कार्यालय, सेक्टर-17, नोएडा-201 301 (यूपी) भारत
BHEL Township : Estate Office, Sector-17, Noida-201 301 (UP) INDIA
फोन (का) 2515429, 2517488 फैक्स: 2510271 Tel : 2515429, 2517488 (Fax) 2510271

NOTICE FOR INVITING TENDER

Sealed tenders are invited in two parts bid for the supply of following items in BHEL Township, Sector-17, Noida.

Title : Supply of Power Cables in BHEL Township Sector-17, Noida.

NIT NO. : 50:AA:NOI:ADMN.: Power Cables:112:2010-11
Dated: 09/03/2011

Delivery Period : Within One Month from the date of placement of order.

DATE OF SUBMISSION & OPENING OF TENDER

Last date for submission of sealed tender at : 23/03/2011 at 1500 Hrs.
Estate Office, BHEL Township, Sector-17, Noida

Date of opening the Tender (Techno- commercial Bid) : 23/03/2011 at 1530 Hrs.

Venue for opening of Tender : Estate Office, BHEL
Township, Sector-17,
Noida

The sealed tender may be sent either by registered post or by hand in the office of Dy. Manager (HR-TAX), Estate Office, Sector – 17, NOIDA – 201301(U.P.) between 9.00 AM to 5.30 PM on any working day till the due date and time. This tender document can also be downloaded from the web site.

(Farrukh Jamal)
Dy. Manager (HR-TAX)
On behalf of “BHEL”

PART 'A' – TECHNO- COMMERCIAL BID

INSTRUCTIONS FOR TENDERER:

1. The offer shall be submitted as per the instructions of tender document. Only one set of tender document duly signed by authorized representative of tenderer and signed & stamped on each page shall be submitted as detailed further. Tenderer should note specifically that all pages of tender document, including the NIT page for this particular tender shall be submitted by them (after signing/ stamping on each page) as a part of their offer. Price shall not be mentioned by them anywhere in the techno-commercial portion of offer. Price shall be mentioned in the relevant price bid only and submitted in separate sealed envelope. In case of any clarification, bidder may contact this office.
2. No overwriting / correction in tender documents by tenderer shall be allowed. However if correction is unavoidable, the same must be signed by authorized signatory.
3. Tender must be submitted in two parts, i.e., (i) Techno-Commercial Bid along with un-price bid and (ii) Price Bid. The tenderer must submit their tenders in two separate sealed envelopes prominently super scribed as Part – A 'Techno- commercial bid' and Part-B 'Price Bid', and the NIT No. & due date on each of the envelope. These two separate envelopes shall together be kept in third envelop super scribed with NIT No. & due date of opening.
4. Techno-commercial bid should contain all the documents like, signed tender document having NIT page, Instructions for tenderer, technical requirement, General terms & conditions, un-price bid, all the annexure duly filled & signed by the tenderer.
5. Price Bid should contain only the "Part-B, Price Bid Format" after quoting the rates as specified in the price bid format.
6. Rates must be quoted in figures as well as in words. Where there is difference between amount in figure & words, amount quoted in words shall prevail.
7. On the date of opening of tender, only Techno-Commercial Bid shall be opened. Price bids of only those tenderers, whose bids are found technically acceptable, will be opened. The opening date for price bid will be informed to the technically qualified tenderers separately by phone, post or e-mail.
8. Tender documents are also available on web site i.e. www.bhel.com and the same can be downloaded and used as tender document for submitting the bid.
9. BHEL reserves the right to accept or reject any or all offer without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter.
10. In case any typing error/other clerical errors is noticed by the tenderer, in the tender documents, the same must be pointed out and got clarified before submission of offer, or else, BHEL's interpretation shall prevail & shall be binding on the tenderer.
11. Any queries regarding this tender may be clarified from Dy. Manager (HR-TAX), on Telephone No. 0120- 2512068 / e-mail : farrukh@bhel.in
12. The tenderers or their representative may attend the opening of both the Bids (Part A & B).
13. In case you are not submitting your offer against this enquiry, we request you to send a regret letter.

PRE- QUALIFYING REQUIREMENT:

Each tender shall be accompanied by the following information/ documents with sufficient details to enable the purchaser to make an appraisal of the quality and suitability of the material offered.

1. Acceptance to supply the materials as per the technical specification enclosed with the tender document by signing the documents.

2. Type test certificates and results as per relevant Indian standards for the materials offered shall be furnished by the tenderer along with the tender. The type test certificates of the materials shall be of recent one and not later than 3(three) years. The type test certificates shall be from a Govt. recognized laboratory or from the tenderer's own laboratory in presence of representative from Govt. institution or organization.
3. Manufacturer's literature, brochures, catalogues etc.
4. Declaration certificate as enclosed at annexure-B
5. No deviation certificate as enclosed at annexure-C

TECHNICAL SPECIFICATION OF POWER CABLES.

1) GENERAL

1. Aluminium and Copper conductor PVC insulated armoured cables shall be used for LT power supply purpose.
2. The cables shall be suitable for lying in racks, ducts, trenches, conduits and underground buried installation with uncontrolled back fill and chances of flooding by water.
3. The PVC insulated cables shall be capable of withstanding a conductor temperature of 160°C during a short circuit without any damage.
4. The Aluminium/Copper wires used for manufacturing the cables shall be true circular in shape before stranding and shall be uniformly good quality, free from defects. All Aluminium used in the cables for conductors shall be of H2 grade.
5. The fillers and inner sheath shall be of non-hygroscopic, fire retardant material, shall be softer than insulation and outer sheath shall be suitable for the operating temperature of the cable.
6. Progressive sequential marking of the length of cable in metres at every one metre shall be provided on the outer sheath of all cables.
7. Strip wire armouring method shall be accepted for power cables.
8. The cables shall have outer sheath of a material with an oxygen index of not less than 29 and a temperature index of not less than 250°C.
9. All the cables shall pass fire resistance test as per IS:1554 (Part-I)
10. The normal current rating of all PVC insulated cables shall be as per IS: 3961.
11. Repaired cables shall not be accepted.
12. The PVC (70°C) insulated power cables shall be of FR type, C1 category, conforming to IS: 1554 (Part-I) and its amendments read along with this specification and shall be suitable for a steady conductor temperature of 70°C. The conductor shall be stranded aluminium. The Insulation shall be extruded PVC to type-A of IS: 5831. A distinct inner sheath shall be provided in all multicore cables. For multicore armoured cables, the inner sheath shall be of extruded PVC. The outer sheath shall be extruded PVC to Type ST-1 of IS 5831 for all cables.
13. The Copper cable should be as per IS:694/1990 (Generally conforming)
14. Cores shall be identified as per IS: 1554 (Part-1).

2) DATA SHEET FOR CABLES: The power cables shall be as per following specification.

Sl. No.	Description	Type of Cable	
		95 sq.mm, 70 sq. mm, 50 sq.mm, 35 sq. mm Aluminium cable	16 sq. mm, 10 sq.mm Copper cable
1	Applicable Standard	IS: 1554/PT-1 & its referred standards.	IS: 694/PT-1 & its referred standards
2	Type Designation	AYFY	AYFY
3	Rated Voltage (volts)	1100	1100

4	Type & Category	FR & C1	FR & C1
5	Suitable for earthed	Yes	Yes
6	Conductor		
	a) Material	Stranded Aluminium as per IS : 8130	Stranded Copper as per IS : 8130
	b) Grade	H 2 (Electrolytic grade)	H 2(Electrolytic grade)
	c) Number of wires(No.)	As per IS 8130	As per IS 8130
	d) Form of Conductor	Stranded compacted circular/sector shaped	No compacted Stranded circular
	e) Direction of lay of stranded layer	Outermost layer shall be R.H lay & opposite in successive layers	
7	Insulation		
	a) Composition of insulation	Extruded PVC type A as per IS-5831	Extruded PVC type A as per IS-5831
	b) Thickness of insulation(mm)	As per applicable Standard	
8	Inner Sheath material	Extruded PVC type ST-1 as per IS-5831	Extruded PVC type ST-1 as per IS-5831
9	Type and material of armour	Gal. Steel wire\strip	Gal. Steel wire\strip
10	Outer Sheath (PVC)	ST-2 & FR	ST-2 & FR
11	Overall diameter of cable	As per applicable Standard	

3) PACKING AND MARKING:

- Cables shall be supplied in standard length of 250 mtrs for item nos.1 & 2 and in standard length of 500 mtrs for item nos. 3, 4, 5 & 6 with plus minus 5% (five percent) tolerance wound on non returnable wooden drums of good quality.
- The following particulars shall be properly legible embossed on the cable sheath at the intervals of not exceeding one meter throughout the length of the cable. The cables with poor and illegible embossing shall be liable for rejection.
 - Manufactures name.
 - Voltage grade.
 - Year of manufacture.
 - Successive Length.
 - Size of cable
 - ISI mark.
- The cable shall be packed on a drum of suitable size. The cable drum shall carry the following information.
 - Manufacturers name.
 - Type of cable and voltage grade.
 - Nominal cross sectional area of the conductor.
 - Length of cable on drum.
 - Number of lengths on drum.
 - Direction of rotation of drum (an arrow)
 - Approximate gross weight.
 - Year of manufacture.

GENERAL TERMS AND CONDITIONS:

1. The NIT No. & due date must be legibly super scribed on the envelopes.
2. The quoted rate should be inclusive of all taxes and F.O.R. BHEL Township Store Sector-17, Noida.
3. The criteria of evaluation of bids will be on the basis of overall L1 rates. However, BHEL shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reason whatsoever.
4. Late tenders or delayed Tenders (received after Due Date & time) will be rejected.
5. Price quoted shall be valid for 90 days from the date of opening of technical bid.
6. Price shall be quoted as per enclosed 'Price Format' only. Quotations not filled in Price Format' are likely to be rejected.
7. The rate should be indicated both in words and figures. All entries in the Tenders must be written in ink or typewritten. Over-writing should be avoided. Corrections, if any, should be attested with signature by the bidder.
8. Rates quoted by the vendor will be firm. No price variation and escalation due to increase in labour / material cost will be allowed.
9. If any information/documents submitted by the contractor are found false/fake at any stage, the tender will be cancelled.
10. **CORRECTION OF ARITHMETIC ERRORS:** Provided that the bid is substantially responsive, BHEL shall correct arithmetical errors on the following basis:
 1. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the BHEL there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.
 2. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
 3. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
 4. If any bidder does not accept the correction of errors, their bids will be disqualified.
11. **INSPECTION:** The inspection of materials will be carried out at the destination/ BHEL's works by the authorized inspecting Officer.
12. **REJECTION:** In case of rejection of materials either full or in part, no payment will be made for the rejected materials. It will be the responsibility of vendor to dispose off the rejected materials at its own cost from BHEL's works within one month after rejection of materials. After the expiry of one month no claim/ correspondence will be entertain for the rejected materials.
13. **TERMS OF PAYMENT:** Payment will normally be made within 15 days of receipt of materials & bill by NEFT or cheque. All payment will be subject to deduction of taxes at source as per applicable rules. No advance payment shall be made by BHEL.
14. **L.D. FOR DELAY IN SUPPLY:** Extension of time for supply of materials may be granted by BHEL where delay is not attributable to the party. In case the materials are not supplied within 30 days, a penalty of 1/2% per week subject to maximum of 10% of the total award value will be deducted as L.D.
15. **RISK PURCHASE :** In the event the supplier has failed to deliver or dispatch whole of the materials or any part within the time stipulated or if the same were not available in his stock, the best and the nearest available substitute thereof may be purchased/arranged by BHEL from elsewhere at the risk and the cost of the vendor. The purchaser at his option will be entitled to

terminate the contract and vendor shall be liable for any loss which the BHEL may sustain by reason of such risk purchases.

16. **GUARANTEE/ WARRANTY:** The vendor shall give guarantee for at least 24 months from the date of actual delivery. During this period, if any defect is found due to bad workmanship or wrong material used, the vendor shall replace or repair the same, free of cost.
17. **TEST CERTIFICATES:** test certificates as per the relevant IS codes shall be submitted by the vendor along with the supply.
18. **INSURANCE:** The vendor will insure the materials for all transit risks upto delivery of the materials at the final destination at its own cost.
19. **RECOVERY FROM THE VENDOR:** Whenever under the contract, any sum of money shall be recoverable from or payable by the vendor, the same may be deducted from any sum then due or which at any time there after may become due to the contractor under the contract or under any other contract with BHEL or from his security deposit, or he shall pay the claim on demand without any terms & conditions.
20. **POST TECHNICAL AUDIT OF SUPPLY AND BILLS:** BHEL reserves the right to carry out a post payment audit and technical examination of the supply and the bills including all supporting vouchers, abstracts etc. and to enforce recovery of any sums becoming due as a result thereof in the manner provided into the proceeding sub-paragraph provided however, that no such recovery shall be enforced after three years of passing the final bill.
21. **ARBITRATION / CONCILIATION:** In the event of any dispute arising between the parties hereafter referred as BHEL and contractor in respect of or connected with this contract, General & Special terms & conditions of tender, then the same shall be referred to Arbitration and arbitrator will be nominated by the Head of Administration of BHEL Corp. Office, New Delhi, whose decision shall be final and binding on both the parties. However, any differences or doubt pertaining to meaning/ interpretation of any phrase word used in terms or in the schedule of services, their nature and manner of rendering of such services shall be the accepted matter and be referred to the Head of Administration of BHEL Corp. Office, New Delhi, whose decision shall be the final and binding. The provisions of Arbitration and Conciliation Act, 1996 or any statutory modification and re-enactment thereof will apply to such arbitration provided however, in all matters the venue of proceedings will be Delhi and only Delhi or appropriate Courts will have jurisdiction over the same.

(Farrukh Jamal)

Dy. Manager (HR-TAX)

On behalf of "BHEL"

UNPRICE BID

Title : Supply of Power Cables in BHEL Township Sector-17, Noida.

NIT NO. : 50:AA:NOI:ADMN.: Power Cables:112:2010-11

Dated: 09/03/2011

Delivery Period : Within One Month from the date of placement of order.

SL. No.	Description of Materials	Unit	Qty	Rate (Rs)	Amount (Rs)
1	3.5 core X 95 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554 (Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: ±5%	Mtrs	250	xxx	xxx
2	3.5 core X 70 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554 (Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: ±5%	Mtrs	250	xxx	xxx
3	3.5 core X 50 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554(Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: ±5%	Mtrs	1000	xxx	xxx
4	3.5 core X 35 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554(Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: ±5%	Mtrs	1500	xxx	xxx
5	4 core X 16 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multi strand, 1100 V Grade, Cupper Cable made as per IS:694 (Part-1) 1990 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: ±5%	Mtrs	500	xxx	xxx
6	4 core X 10 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Cupper Cable made as per IS:694 (Part-1) 1990 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: ±5%	Mtrs	500	xxx	xxx
Total (Rs)					xxx
E.D. (.....% on Ex Works)					xxx
CST/ VAT (.....% against form ‘C’)					xxx
Freight/ Cartage					xxx
Gross Total Amount (Rs)					xxx
Total in Words: Rupees xxx					

I/ we have gone through all the instructions, Pre-qualifying requirement, technical specifications of Power Cables, & all the General terms & Conditions enclosed with this tender document and agree to abide by these.

(Engineer Incharge)

(Signature & seal of the bidder)

DECLARATION

I / We hereby declare that no case is pending with the police/ court against the bidder/ firm/ company (Agency). Also I /We have not been suspended / blacklisted by any PSU / Government Department / Financial Institution / Court etc.

(Signature & seal of the bidder)

Place:

Date:

ESTATE OFFICE: BHEL TOWNSHIP: NOIDA

NIT No.50: AA:NOI:ADMN.: Power Cable:112:2011-12

Date: 09.03.2011

No Deviation Certificate

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions of this tender. We hereby undertake and confirm that we have understood the specifications properly and shall be supplied the material mentioned in this tender enquiry.

(Signature & seal of the bidder)

PART 'B' – PRICE BID

Title : Supply of Power Cables in BHEL Township Sector-17, Noida.

NIT NO. : 50:AA:NOI:ADMN.: Power Cables:112:2010-11

Dated: 09/03/2011

Delivery Period : Within One Month from the date of placement of order.

SL. No.	Description of Materials	Unit	Qty	Rate (Rs)	Amount (Rs)
1	3.5 core X 95 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554 (Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: $\pm 5\%$	Mtrs	250		
2	3.5 core X 70 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554 (Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: $\pm 5\%$	Mtrs	250		
3	3.5 core X 50 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554(Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: $\pm 5\%$	Mtrs	1000		
4	3.5 core X 35 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Aluminium Cable made as per IS:1554(Part-1) 1988 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: $\pm 5\%$	Mtrs	1500		
5	4 core X 16 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multi strand, 1100 V Grade, Cupper Cable made as per IS:694 (Part-1) 1990 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: $\pm 5\%$	Mtrs	500		
6	4 core X 10 sq. mm Armoured PVC Insulated & PVC Overall Sheathed, Multistrand, 1100 V Grade, Cupper Cable made as per IS:694 (Part-1) 1990 with latest Amendment, ISI Marked Type AYFY. Quantity Variation: $\pm 5\%$	Mtrs	500		
Total (Rs)					
E.D. (.....% on Ex Works)					
CST/ VAT (.....% against form 'C')					
Freight/ Cartage					
Gross Total Amount (Rs)					
Total in Words: Rupees					

I/ we have gone through all the instructions, Pre-qualifying requirement, technical specifications of Power Cables, & all the General terms & Conditions enclosed with this tender document and agree to abide by these.

(Engineer Incharge)

(Signature & seal of the bidder)