

Tender Notification for

**SUPPLY OF 11KV XLPE INSULATED ALUMINIUM
CONDUCTOR POWER CABLE OF SIZE 3X300 SQ.MM**

NIT NO CMC/BR/11-12/ASG/DKS/181

Due Date for Submission: 21.02.2012, 11:00 A.M.

BSES RAJDHANI POWER LTD (BRPL)

SECTION – I: REQUEST FOR QUOTATION

1.00 Event Information

1.01 BSES Rajdhani Power Ltd (hereinafter referred to as "BRPL") invites sealed tenders in 2 envelopes for supply of 11KV Grade XLPE Insulated Aluminium Conductor Power Cable of size 3x300mm² from reputed manufacturers. The bidder must qualify the technical requirements as specified in clause 2.0 stated below.

All envelopes shall be duly superscribed as – "**BID FOR SUPPLY OF 11KV GRADE XLPE INSULATED ALUMINIUM CONDUCTOR POWER CABLE OF SIZE 3X300 SQ.MM "NIT NO CMC/BR/11-12/ASG/DKS/181 DUE ON 21.02.2012, 1100HRS"**

Sl. No.	Item Description	Technical Specification	Estimated Cost	Qty.	Delivery at
1	Supply of 11KV Grade XLPE Insulated Aluminium Conductor Power Cable Of Size 3x300 Sq.mm	Spec. No SP-EWHP-01-R3	Rs 11.00 Crores	100 KM	New Delhi STORES

Note: Individual Drum Quantity may vary \pm 5%. There will be no positive tolerance on the overall total order quantity. However (-) 2% will be allowed on overall order quantity.

1.02 The schedule of specifications with detail terms & conditions can be obtained from address given below against submission of non-refundable demand draft of **Rs.1000/-** drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi. The tender papers will be issued on all working days upto **14.02.2012, 15:00 P.M.** The tender documents & detail terms and conditions can also be downloaded from the website "**www.bsesdelhi.com**".

In case tender papers are downloaded from the above website, then the bidder has to enclose a demand draft covering the cost of bid documents.

1.03 Offers will be received upto **21.02.2012, 11:00 A.M.** at the address given below. Part A of the Bid shall be opened on **21.02.2012, 1200 Hrs.** Part B of the Bid will be opened in case of Techno-Commercially qualified Bidders and the date of opening of same shall be intimated in due course. It is the sole responsibility of the bidder to ensure that the bid documents reach this office on or before the last date.

Head of Department
Contracts & Materials Deptt.
BSES Rajdhani Power Ltd
C&M Deptt.
1st Floor, C Block
BSES Bhawan, Nehru Place
New Delhi 110019

1.04 BRPL reserves the right to accept/reject any or all Tenders without assigning any reason thereof and alter the quantity of materials mentioned in the Tender documents by (\pm) 30% at the time of placing purchase orders.

1.05 Tender will be summarily rejected if:

(i) **Earnest Money Deposit (EMD)** of value Rs 11,00,000/- is not deposited in shape of Bank Draft/Pay Order/Banker's Cheque/BG drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi.

- (ii) The offer does not contain "FOR NEW DELHI" price indicating break-up towards all taxes & duties.
- (iii) Complete Technical details are not enclosed.
- (iv) Tender is received after due date and time.

2.00 Qualification Criteria:-

The prospective bidder must qualify all of the following requirements to be eligible to participate in the bidding Bidders who meet following requirements will be considered as successful bidder and management has a right to disqualify those bidders who do not meet these requirements.

- a. The bidder must be a manufacturer of 11KV or higher grade HT Power Cable of conductor size 300mm² and above having valid Type Test Reports carried out at CPRI/ERDA identical/similar to the construction being offered against present Tender.
- b. The bidder should have manufacturing capacity of minimum 30-40kms per month
- c. The bidder should have qualified technical & qualified QA personnel at various stages of manufacture & testing
- d. Bidder should have Average Annual Sales Turnover of Rs 150.00 Crores or more in last 3 years
- e. The bidder should have supplied at least 100km. of similar Cross section or higher to any major utilities/SEB's in last 3 years out of which at least 50% should be in successful operation in last 2 years. Performance certificate shall be furnished in support of same
- f. The bidder must possess valid ISO 9001:2000 certification and must possess valid BIS License.
- g. In case of new bidders(not enlisted in BSES), Factory inspection & evaluation shall be carried out to ascertain bidder's manufacturing capabilities and quality procedures.
- h. **Bidders already qualified against previous tenders for similar size of cables need not submit the documents in support of qualification criteria. However GTP shall be submitted**

3.00 Bidding and Award Process

Bidders are requested to submit their offer strictly in line with this tender document. **NO DEVIATION IS ACCEPTABLE.** BRPL shall respond to the clarifications raised by various bidders and the will be distributed to all participating bidders through website.

3.01 BID SUBMISSION

The bidders are required to submit the bids in 2(two) parts and submitted in 1 original + 1 duplicate to the following address

Head of Department
Contracts & Material Deptt.
BSES Rajdhani Power Ltd
1st Floor, C Block
BSES Bhawan, Nehru Place
New Delhi 110019

PART A :: **TECHNICAL BID** comprising of following

- EMD
- Non-refundable demand draft for Rs 1000/- in case the forms are downloaded from website
- Documentary evidence in support of qualifying criteria
- Technical Literature/ GTP/Type test report etc
- Qualified Manpower available

- Testing Facilities
- Original Tender documents duly stamped & signed on each page as token of acceptance
- Acceptance to Commercial Terms and Conditions viz. Delivery schedule/period, Payment terms, BG, Power-of-Attorney etc

PART B

:: **FINANCIAL BID** comprising of

- Price strictly in the Format enclosed in SECTION V indicating Break up of basic price, taxes & duties, Freight etc

3.02 Time Schedule

The bidders should complete the following within the dates specified as under:

S. No.	Steps	Comprising of	Due date
1	Queries, if any	<ul style="list-style-type: none"> ▪ All Queries related to RFQ 	14.02.2012, 17:00 P.M.
2	PART A Technical and Commercial Bid	<ul style="list-style-type: none"> ▪ EMD of requisite amount ▪ Non-refundable DD for Rs 1000/- in case tender documents downloaded from website ▪ Documentary evidence in support of qualifying criteria ▪ Technical Literature/ GTP duly filled in/Type test report, ▪ Qualified Manpower available ▪ Testing Facilities ▪ Any other relevant document ▪ Acceptance to Commercial Terms and Conditions viz. Delivery schedule/period, Payment terms etc 	21.02.2012, 1100Hrs
3	PART B Financial Bid	<ul style="list-style-type: none"> • Price strictly in the Format enclosed(Section V) indicating Break up regarding basic price, taxes & duties, Freight etc 	

This is a two part bid process. Bidders are to submit the bids in 2(two) parts.

Both these parts should be furnished in separate sealed covers superscribing NIT no. DUE DATE OF SUBMISSION, with particulars as **PART-A "TECHNICAL BID & COMMERCIAL TERMS & CONDITIONS"** and **Part-B "FINANCIAL BID"** and these sealed envelopes should again be placed in another sealed cover which shall be submitted before the due date & time specified.

Part – A:: Technical Bid should not contain any cost information whatsoever and shall be submitted within the due date.

PART B:: This envelope will be opened after techno-commercial evaluation and only of the qualified bidders. The date & time of same shall be intimated in due course to the qualified bidders

Notwithstanding anything stated above, the Purchaser reserves the right to assess bidders capability to perform the contract, should the circumstances warrant such assessment in the overall interest of the purchaser. In this regard the decision of the purchaser is final.

BIDS RECEIVED AFTER DUE DATE AND TIME MAY BE LIABLE TO REJECTION

4.00 Award Decision

- 4.01 Purchaser intends to award the business on a lowest bid basis, so suppliers are encouraged to submit the bid competitively. The decision to place purchase order/LOI solely depends on purchaser on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that Purchaser may deem relevant.
- 4.02 The purchaser reserves all the rights to award the contract to one or more bidders so as to meet the delivery requirement or nullify the award decision without any reason.
- 4.03 In the event of your bid being selected by purchaser (and / or its affiliates) and you subsequent DEFAULT on your bid; you will be required to pay purchaser (and / or its affiliates) an amount equal to the difference in your bid and the next lowest bid on the quantity declared in NIT/RFQ.
- 4.04 In case any supplier is found unsatisfactory during the delivery process, the award will be cancelled and BRPL reserves the right to award other suppliers who are found fit.
- 4.05 **QTY VARIATION:** The purchaser reserves the rights to vary the quantity by (\pm) 30% of the tender quantity.

5.00 Market Integrity

We have a fair and competitive marketplace. The rules for bidders are outlined in the Terms & Conditions. Bidders must agree to these rules prior to participating. In addition to other remedies available, we reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the Terms & Condition. A bidder who violates the marketplace rules or engages in behavior that disrupts the fair execution of the marketplace restricts a bidder to length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace.
- Breach of the terms of the published in Request For Quotation/NIT.

6.00 Supplier Confidentiality

All information contained in this RFQ is confidential and shall not be disclosed, published or advertised in any manner without written authorization from BRPL. This includes all bidding information submitted.

All RFQ documents remain the property of BRPL and all suppliers are required to return these documents to BRPL upon request.

Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

7.00 Contact Information

Technical clarification, if any, as regards this RFQ shall be sought in writing and sent by post/courier to following address. The same shall not be communicated through email/phone

	Technical	Commercial
Contact Person	Mr Krishnapura Sheshadri Copy to : Mr. Ashok Gautam	Mr. Ashok Gautam
Address	BSES Rajdhani Power Ltd , 5 th Floor , 20, Nehru Place, New Delhi 110019	C&M Deptt. 1 st Floor , C-Block, BSES Rajdhani Power Ltd BSES Bhawan, Nehru Place, New Delhi 110019

SECTION – II: INSTRUCTION TO BIDDERS

A. GENERAL

1.00 BSES Rajdhani Power Ltd. hereinafter referred to as "The Purchaser" are desirous of implementing the various Systems Improvement/Repair & Maintenance works at their respective licensed area in Delhi.

2.00 SCOPE OF WORK

The scope shall include Design, Manufacture, Testing at works conforming to the Technical Specifications/IS along with Packing, Forwarding, Transportation and Unloading and proper stacking at Purchaser's stores/site.

3.00 DISCLAIMER

3.01 This Document includes statements, which reflect various assumptions, which may or may not be correct. Each Bidder/Bidding Consortium should conduct its own estimation and analysis and should check the accuracy, reliability and completeness of the information in this Document and obtain independent advice from appropriate sources in their own interest.

3.02 Neither Purchaser nor its employees will have any liability whatsoever to any Bidder or any other person under the law or contract, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage whatsoever which may arise from or be incurred or suffered in connection with anything contained in this Document, any matter deemed to form part of this Document, provision of Services and any other information supplied by or on behalf of Purchaser or its employees, or otherwise arising in anyway from the selection process for the Supply.

3.03 Though adequate care has been taken while issuing the Bid document, the Bidder should satisfy itself that Documents are complete in all respects. Intimation of any discrepancy shall be given to this office immediately.

3.04 This Document and the information contained herein are Strictly Confidential and are for the use of only the person(s) to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient's professional advisors).

4.00 COST OF BIDDING

The Bidder shall bear all cost associated with the preparation and submission of its Bid and Purchaser will in no case be responsible or liable for those costs.

B. BIDDING DOCUMENTS

5.01 The Scope of Work, Bidding Procedures and Contract Terms are described in the Bidding Documents are as follows:

- | | |
|--|----------------|
| (a) Request for Quotation (RFQ) | - Section - I |
| (b) Instructions to Bidders (ITB) | - Section - II |
| (c) Terms & Conditions of Contract (T&C) | - Section -III |
| (d) Delivery schedule | - Section IV |
| (e) Price Format | - Section V |
| (f) EMD BG Format | - Section VI |

- (g) Bid Form - Section VII
(h) Technical Specifications (TS) - Section -VIII (27 Pages)

5.02 The Bidder is expected to examine the Bidding Documents, including all Instructions, Forms, Terms and Specifications. Failure to furnish all information required by the Bidding Documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect will may result in the rejection of the Bid.

6.00 AMENDMENT OF BIDDING DOCUMENTS

6.01 At any time prior to the deadline for submission of Bids, the Purchaser may for any reasons, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by Amendment.

6.02 The Amendment shall be part of the Bidding Documents, pursuant to Clause 5.01, and it will be notified in web site www.bsesdelhi.com and the same will be binding on them.

6.03 In order to afford prospective Bidders reasonable time in which to take the Amendment into account in preparing their Bids, the Purchaser may, at its discretion, extend the deadline for the submission of Bids. The same shall be published as a corrigendum in website www.bsesdelhi.com

6.04 Purchaser shall reserve the rights to following
a) extend due date of submission
b) modify tender document in part/whole
c) cancel the entire tender

C. PREPARATION OF BIDS

7.0 LANGUAGE OF BID

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

8.0 DOCUMENTS COMPRISING THE BID

The Bid prepared and submitted by the Bidder shall comprise the following components:

- (a) Bid Form, Price & other Schedules (STRICTLY AS PER FORMAT) and Technical Data Sheets completed in accordance with Technical Specification.
- (b) All the Bids must be accompanied with the required EMD as mentioned in the Section-I against each tender.
- (c) Tender documents duly stamped and signed on each page by authorized signatory.

9.00 BID FORM

9.01 The Bidder shall submit one "Original" and one "Copy" of the Bid Form and the appropriate Price Schedules and Technical Data Sheets duly filled in as per attached

specification (Section VIII) enclosed with the Bidding Documents.

9.02 EMD

Pursuant to Clause 8.0(b) above, the bidder shall furnish, as part of its bid, a EMD amounting to as specified in the Section-I. The EMD is required to protect the Purchaser against the risk of Bidder's conduct which would warrant forfeiture.

The EMD shall be denominated in any of the following form:

- (a) Banker's Cheque/Demand Draft/Pay Order drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi.
- (b) Bank Guarantee valid for sixty(60) days after due date of submission drawn in favour of BSES Rajdhani Power Ltd

The EMD may be forfeited in case of:

- (a) the Bidder withdraws its bid during the period of specified bid validity or
- (b) the case of a successful Bidder, if the Bidder does not
 - (i) accept the Purchase Order, or
 - (ii) furnish the required performance security BG.

10.00 BID PRICES (VARIABLE PRICES)

10.01 Bidders shall quote for the entire Scope of Supply with a break-up of prices for individual items. The total Bid Price shall also cover all the Supplier's obligations mentioned in or reasonably to be inferred from the Bidding Documents in respect of Design, Supply, Transportation to site, all in accordance with the requirement of Bidding Documents The Bidder shall complete the appropriate Price Schedules included herein , stating the Unit Price for each item & total Price.

10.02 The prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during execution of the supply work, breakup of price constituents, should be there.

10.03 Prices quoted by the Bidder shall be "**Variable**" and subject to price adjustment during the performance of the Contract as per Price Variation (PV) Formulae subject to ceiling of (+) 20%. However there will be no ceiling on Minus (-) side

10.04 **The initial and final date for application of PV will be as per Circular of IEEMA on the 1st day of the month prior to month of due date of bid submission and on the 1st day of the month prior to month of date of material offered for inspection (Date of Call Letter) . The bidder shall submit supporting IEEMA Circular(s) along with his bid.**

10.05 Price Variation Formula

$$P_1 = P_0 + (AL_1 - AL_0) \times \text{Weight of Aluminium used in kg/km}$$

Whereas P_0 = Original Ex-works price as per Purchase Order

P_1 = Revised Ex-works price as adjusted in accordance to above formula

AL_1 = Prices Indices for EC Grade Aluminium Ingots as published by IEEMA in their circular of basic prices of raw material for insulated cables on 1st day of the month prior to the month of date of material offered for inspection.

AL_0 = Prices Indices for EC Grade Aluminium Ingots as published by IEEMA in their circular of basic prices of raw material for insulated cables on 1st day of the month prior to the month of due date of bid submission.

10.06 Weight of Aluminium per KM of Cable for 11KV Grade of 3x300 mm² cable shall be 2457kg/km.

10.07 In case the date(s) mentioned in the PV Formula are beyond the contractual delivery date, the date advantageous to the purchaser will form the basis of Price Variation

11.00 **BID CURRENCIES**

Prices shall be quoted in Indian Rupees Only.

12.00 **PERIOD OF VALIDITY OF BIDS**

12.01 Bids shall remain valid for 60 days from the due date of submission of the Bid.

12.02 Notwithstanding Clause 12.01 above, the Purchaser may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and the responses thereto shall be made in writing and sent by post/courier

13.00 **ALTERNATIVE BIDS**

Bidders shall submit Bids, which comply with the Bidding Documents. Alternative Bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the Bidding Documents.

14.00 **FORMAT AND SIGNING OF BID**

14.01 The original Bid Form and accompanying documents (as specified in Clause 9.0), clearly marked "Original Bid" plus one copy must be received by the Purchaser at the date, time and place specified pursuant to Clauses 15.0 and 16.0. In the event of any discrepancy between the original and the copies, the original shall govern.

14.02 The original and copy of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to sign on behalf of the Bidder. Such authorization shall be indicated by written Power-of-Authority accompanying the Bid.

14.03 The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

D. SUBMISSION OF BIDS

15.00 **SEALING AND MARKING OF BIDS**

15.01 Bid submission: One original & one Copy (hard copies) of all the Bid Documents shall be sealed and submitted to the Purchaser before the closing time for submission of the bid.

15.02 The Technical Documents and the EMD shall be enclosed in a sealed envelope and the said envelope shall be superscribed with —"Technical & EMD". The price bid shall be inside another sealed envelope with superscribed as "Financial Bid". Both these envelopes

shall be sealed inside another big envelope. All the envelopes should bear the Name and Address of the Bidder and marking for the Original and Copy. The envelopes should be superscribed with —"Tender Notice No.& Due date of opening".

15.03 The Bidder has the option of sending the Bids in person. Bids submitted by Email/Telex/Telegram /Fax will be rejected. No request from any Bidder to the Purchaser to collect the proposals from Courier/Airlines/Cargo Agents etc shall be entertained by the Purchaser.

16.00 **DEADLINE FOR SUBMISSION OF BIDS**

16.01 The original Bid, together with the required copies, must be received by the Purchaser at the address specified no **later than the due date specified earlier**

16.02 The Purchaser may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with Clause 9.0, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended

17.00 **ONE BID PER BIDDER**

Each Bidder shall submit only one Bid by itself. No Joint Venture is acceptable. A Bidder who submits or participates in more than one Bid will cause all those Bids to be rejected.

18.00 **LATE BIDS**

Any Bid received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, pursuant to Clause 16.0, will be declared "Late" and may be rejected and returned unopened to the Bidder.

19.00 **MODIFICATIONS AND WITHDRAWAL OF BIDS**

The Bidder is not allowed to modify or withdraw its Bid after the Bid's submission.

E. EVALUATION OF BID

20.00 **PROCESS TO BE CONFIDENTIAL**

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the Purchaser's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

21.00 **CLARIFICATION OF BIDS**

To assist in the examination, evaluation and comparison of Bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its Bid. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.

22.00 **PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS**

- 22.01 Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. Purchaser may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.
- 22.02 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.
- 22.03 Prior to the detailed evaluation, Purchaser will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.
- 22.04 Bid determined as not substantially responsive will be rejected by the Purchaser and/or the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

23.00 EVALUATION AND COMPARISON OF BIDS

- 23.01 The evaluation of Bids shall be done based on the delivered cost competitiveness basis.
- 23.02 The evaluation of the Bids shall be a stage-wise procedure. The following stages are identified for evaluation purposes: In the first stage, the Bids would be subjected to a responsiveness check. The Technical Proposals and the Conditional ties of the Bidders would be evaluated.

Subsequently, the Financial Proposals along with Supplementary Financial Proposals, if any, of Bidders with Techno-commercially Acceptable Bids shall be considered for final evaluation.

- 23.03 The Purchaser's evaluation of a Bid will take into account, in addition to the Bid price, the following factors, in the manner and to the extent indicated in this Clause:
- (a) Delivery Schedule
 - (b) Conformance to Qualifying Criteria
 - (c) Deviations from Bidding Documents

Bidders shall base their Bid price on the terms and conditions specified in the Bidding Documents. The cost of all quantifiable deviations and omissions from the specification, terms and conditions specified in Bidding Documents shall be evaluated. The Purchaser will make its own assessment of the cost of any deviation for the purpose of ensuring fair comparison of Bids.

- 23.04 Any adjustments in price, which result from the above procedures, shall be added for the purposes of comparative evaluation only to arrive at an "Evaluated Bid Price". Bid Prices quoted by Bidders shall remain unaltered.

F. AWARD OF CONTRACT

24.00 CONTACTING THE PURCHASER

24.01 If any Bidder wishes to contact the Purchaser on any matter related to the Bid, from the time of Bid opening to the time of contract award, the same shall be done in writing only.

24.02 Any effort by a Bidder to influence the Purchaser and/or in the Purchaser's decisions in respect of Bid evaluation, Bid comparison or Contract Award, will result in the rejection of the Bidder's Bid.

25.00 THE PURCHASER 'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Purchaser reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at anytime prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

26.00 AWARD OF CONTRACT

The Purchaser will award the Contract to the successful Bidder whose Bid has been determined to be the lowest-evaluated responsive Bid, provided further that the Bidder has been determined to be qualified to satisfactorily perform the Contract. Purchaser reserves the right to award order to other bidders in the tender, provided it is required for timely execution of project & provided he agrees to come to the lowest rate. Purchaser reserves the right to distribute the entire tender quantity at its own discretion without citing any reasons thereof.

27.00 THE PURCHASER 'S RIGHT TO VARY QUANTITIES

The Purchaser reserves the right to vary the quantity i.e. increase or decrease the numbers/quantities without any change in terms and conditions during the execution of the Order.

28.00 LETTER OF INTENT/ NOTIFICATION OF AWARD

The letter of intent/ Notification of Award shall be issued to the successful Bidder whose bids have been considered responsive, techno-commercially acceptable and evaluated to be the lowest (L1). The successful Bidder shall be required to furnish a letter of acceptance with in 7 days of issue of the letter of intent /Notification of Award by Purchaser.

29.00 PERFORMANCE BANK GAURANTEE

Within 15 days of the receipt of Notification of Award/ Letter of Intent from the Purchaser, the successful Bidder shall furnish the Performance Bank Guarantee for an amount of 10% (Ten percent) of the Contract Price. The Performance Bond shall be valid for a period of 24 months from the date of Commissioning or 30 months from the date of last dispatch whichever is earlier plus 3 months claim period. Upon submission of the performance security, the EMD shall be released.

30.00 CORRUPT OR FRADULENT PRACTICES

30.01 The Purchaser requires that the Bidders observe the highest standard of ethics during the

procurement and execution of the Project. In pursuance of this policy, the Purchaser:

- (a) Defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "Corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; and
 - (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition.
- (b) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract.

30.02 Furthermore, Bidders shall be aware of the provision stated in the Terms and Conditions of Contract.

SECTION – III: TERMS AND CONDITIONS

1.0 General Instructions

- 1.01** All the Bids shall be prepared and submitted in accordance with these instructions.
- 1.02** Bidder shall bear all costs associated with the preparation and delivery of its Bid, and the Purchaser will in no case shall be responsible or liable for these costs.
- 1.03** The Bid should be submitted by the Bidder in whose name the bid document has been issued and under no circumstances it shall be transferred/sold to the other party.
- 1.04** The Purchaser reserves the right to request for any additional information and also reserves the right to reject the proposal of any Bidder, if in the opinion of the Purchaser, the data in support of RFQ requirement is incomplete.
- 1.05** The Bidder is expected to examine all instructions, forms, terms & conditions and specifications in the Bid Documents. Failure to furnish all information required in the Bid Documents or submission of a Bid not substantially responsive to the Bid Documents in every respect may result in rejection of the Bid. However, the Purchaser's decision in regard to the responsiveness and rejection of bids shall be final and binding without any obligation, financial or otherwise, on the Purchaser.

2.0 Definition of Terms

- 2.01** "Purchaser" shall mean BSES Rajdhani Power Limited, on whose behalf this bid enquiry is issued by its authorized representative / officers.

- 2.02** "Bidder" shall mean the firm who quotes against this bid enquiry issued by the Purchaser. "Supplier" or "Supplier" shall mean the successful Bidder and/or Bidders whose bid has been accepted by the Purchaser and on whom the "Letter of Acceptance" is placed by the Purchaser and shall include his heirs, legal representatives, successors and permitted assigns wherever the context so admits.
- 2.03** "Supply" shall mean the Scope of Contract as described.
- 2.04** "Specification" shall mean collectively all the terms and stipulations contained in those portions of this bid document known as RFQ, Commercial Terms & Condition, Instructions to Bidders, Technical Specifications and the Amendments, Revisions, Deletions or Additions, as may be made by the Purchaser from time to time.
- 2.05** "Letter of Acceptance" shall mean the official notice issued by the Purchaser notifying the Supplier that his proposal has been accepted and it shall include amendments thereto, if any, issued by the Purchaser. The "Letter of Acceptance" issued by the Purchaser shall be binding on the "Supplier" The date of Letter of Acceptance shall be taken as the effective date of the commencement of contract.
- 2.06** "Month" shall mean the calendar month and "Day" shall mean the calendar day.
- 2.07** "Codes and Standards" shall mean all the applicable codes and standards as indicated in the Specification.
- 2.08** "Offer Sheet" shall mean Bidder's firm offer submitted to BRPL in accordance with the specification.
- 2.09** "Contract" shall mean the "Letter of Acceptance/Purchase Order" issued by the Purchaser.
- 2.10** "Contract Price" shall mean the price referred to in the "Letter of Acceptance/Purchase Order".
- 2.11** "Contract Period" shall mean the period during which the "Contract" shall be executed as agreed between the Supplier and the Purchaser in the Contract inclusive of extended contract period for reason beyond the control of the Supplier and/or Purchaser due to force Majeure.
- 2.12** "Acceptance" shall mean and deemed to include one or more of the following as will be stipulated in the specification:
- a) The written acceptance of material by the inspector at suppliers works to ship the materials.
 - b) Acceptance of material at Purchaser site stores after its receipt and due inspection/ testing and release of material acceptance voucher.
 - c) Where the scope of the contract includes supply, acceptance shall mean issue of necessary equipment / material takeover receipt after installation & commissioning and final acceptance.

3.0 Contract Documents & Priority

- 3.01** Contract Documents: The terms and conditions of the contract shall consist solely of these RFQ conditions and the offer sheet.

4.0 Scope of Supply -General

- 4.01** The "Scope of Supply" shall be on the basis of Bidder's responsibility, completely covering the obligations, responsibility and supplies provided in this Bid enquiry whether implicit or explicit.
- 4.02** Bidder shall have to quote for the Bill of quantities as listed in Section – IV of this RFQ.
- 4.03** Quantity variation and additional requirement if any shall be communicated to successful bidder during project execution.
- 4.04** All relevant drawings, data and instruction manuals.

5.0 Quality Assurance and Inspection

- 5.01** Immediately on award of contract, the bidder shall prepare detailed quality assurance plan / test procedure identifying the various stages of manufacture, quality checks performed at each stage, raw material inspection and the Customer hold points. The document shall also furnish details of method of checking, inspection and acceptance standards / values and get the approval of Purchaser before proceeding with manufacturing. However, Purchaser shall have right to review the inspection reports, quality checks and results of suppliers in house inspection department which are not Customer hold points and the supplier shall comply with the remarks made by purchaser or his representative on such reviews with regards to further testing, rectification or rejection, etc.
- 5.02** Witness and Hold points are critical steps in manufacturing, inspection and testing where the supplier is obliged to notify the Purchaser in advance so that it may be witnessed by the Purchaser. Final inspection is a mandatory hold point. The supplier to proceed with the work past a hold point only after clearance by purchaser or a witness waiver letter from BRPL.
- 5.03** The performance of waiver of QA activity by Purchaser at any stage of manufacturing does not relieve the supplier of any obligation to perform in accordance with and meet all the requirements of the procurement documents and also all the codes & reference documents mentioned in the procurement document nor shall it preclude subsequent rejection by the purchaser.
- 5.04** On completion of manufacturing the items can only be dispatched after receipt of dispatch instructions issued by the Purchaser.
- 5.05** All in-house testing and inspection shall be done with out any extra cost. The in-house inspection shall be carried out in presence of BSES/BSES authorized third party inspection agency. Cost of Futile/abortive visit(s) shall be debited from the invoices.
- 5.06** Purchaser reserves the right to send any material being supplied to any recognized laboratory for testing, wherever necessary and the cost of testing shall be borne by the Bidder. In case the material is found not in order with the technical requirement / specification, the charges along with any other penalty which may be levied is to be borne by the bidder. To avoid any complaint the supplier is advised to send his representative to the stores to see that the material sent for testing is being sealed in the presence of bidder's representative.

6.0 Packing, Packing List & Marking

6.01 Packing: Supplier shall pack or shall cause to be packed all Commodities in crates/boxes/drums/containers/cartons and otherwise in such a manner as shall be reasonably suitable for shipment by road or rail to BRPL, Delhi/New Delhi stores/site without undue risk of damage in transit.

6.02 Packing List: The contents of each package shall be itemized on a detailed list showing the exact weight, extreme outside dimensions (length, width and weight) of each container/box/drum/carton, Item SAP Code, PO No & date. One copy of the packing list shall be enclosed in each package delivered.

7.01 Price basis for supply of materials

Bidder to quote their prices on Landed Cost Basis and separate price for each item. FIRM prices for supply to BRPL Delhi/New Delhi stores inclusive of packing, forwarding, loading at manufacturer's premises, payment of Excise Duty, Sales Tax/VAT, Freight, any other local charges. **Octroi is presently not applicable in Delhi and however if applicable shall be reimbursed at actual.**

The above supply prices shall also include unloading at BRPL Delhi/New Delhi stores/site.

Transit insurance will be arranged by Purchaser; however bidder to furnish required details in advance for arranging the same by Purchaser.

Purchaser shall issue Form 'C' wherever applicable and accordingly bidder to consider applicable taxes in the quoted price.

8.0 Terms of payment and billing

8.01 For Supply of Equipments:

100% payment shall be made within 45 days from the date of receipt of material at store/ site.

8.02 Bidder to submit the following documents against dispatch of each consignment:

- i. Consignee copy of LR
- ii. Supplier detailed invoice showing commodity description, quantity, unit price, total price and basis of delivery.
- iii. Original certificate issued by BRPL confirming receipt of material at site and acceptance of the same.
- iv. Dispatch clearance & inspection report issued by the inspection authority
- v. Packing List.
- vi. Test Reports
- vii. Guarantee Certificate.

9.0 Price Validity

9.01 All bids submitted shall remain valid, firm and subject to unconditional acceptance by BRPL Delhi for 60 days from the due date of submission. For awarded suppliers, the prices shall remain valid and firm till contract completion.

10.0 Performance Guarantee

10.01 To be submitted within fifteen (15) days from the date of issuance of the Letter of Award/PO, supplier shall establish a performance bond in favor of BRPL in an amount not less than ten percent (10%) of the total price of the Contract (the "Performance Bond"). The Performance Bond shall be valid for a period of 24 months from the date of Commissioning or 30 months from the date of last dispatch whichever is earlier plus 3 months claim period.

10.02 Bank guarantee shall be drawn in favour of BSES Rajdhani Power Ltd as applicable. The performance Bank guarantee shall be in the format as specified by BRPL.

11.0 Forfeiture

11.01 Each Performance Bond established under Clause 10.0 shall contain a statement that it shall be automatically and unconditionally forfeited without recourse and payable against the presentation by BRPL of this Performance Bond, to the relevant bank referred to above, together with a simple statement that supplier has failed to comply with any term or condition set forth in the Contract.

11.02 Each Performance BG established under will be automatically and unconditionally forfeited without recourse if BRPL in its sole discretion determines that supplier has failed to comply with any term or condition set forth in the contract.

12.0 Release

All Performance Bonds will be released without interest within seven (7) days from the last date up to which the Performance Bond has to be kept valid (as defined in Clause 10.0) except for the case set forth in Clause 21.0.

13.0 Warranty/Defects Liability Period

13.01 The bidder to guarantee the materials / items supplied against any defect of failure, which arise due to faulty materials, workmanship or design for the entire defects liability period. The Defect liability period shall be 60 months from the date of commissioning or 66 months from the date of delivery whichever is earlier. If during the defects liability period any materials / items are found to be defective, these shall be replaced or rectified by the bidder at his own cost within 30 days from the date of receipt of intimation.

14.0 Return, Replacement or Substitution.

BRPL shall give Supplier notice of any defective Commodity promptly after becoming aware thereof. BRPL may in its discretion elect to return defective Commodities to Supplier for replacement, free of charge to BRPL, or may reject such Commodities and purchase the same or similar Commodities from any third party. In the latter case BRPL shall furnish proof to Supplier of the cost of such substitute purchase. In either case, all costs of any replacement, substitution, shipping, labour and other related expenses incurred in connection with the return and replacement or for the substitute purchase of a Commodity hereunder should be for the account of Supplier. BRPL may set off such costs against any amounts payable by BRPL to Supplier. Supplier shall reimburse BRPL for the amount, if any, by which the price of a substitute Commodity exceeds the price for such Commodity as quoted in the Bid.

15.0 Effective Date of Commencement of Contract:

15.01 The date of the issuance of the Letter of Acceptance/Purchase Order shall be treated as the effective date of the commencement of Contract.

16.0 Time – The Essence of Contract

16.01 The time and the date of completion of the "Supply" as stipulated in the Letter Of Acceptance / Purchase order issued to the Supplier shall be deemed to be the essence of the "Contract". The Supply has to be completed not later than the aforesaid Schedule and date of completion of supply.

17.0 The Laws and Jurisdiction of Contract:

17.01 The laws applicable to this Contract shall be the Laws in force in India.

17.02 All disputes arising in connection with the present Contract shall be settled amicably by mutual consultation failing which shall be finally settled as per the rules of Arbitration and Conciliation Act, 1996 at the discretion of Purchaser. The venue of arbitration shall be at Mumbai in India

18.0 Events of Default

18.01 Events of Default. Each of the following events or occurrences shall constitute an event of default ("Event of Default") under the Contract:

- (a) Supplier fails or refuses to pay any amounts due under the Contract;
- (b) Supplier fails or refuses to deliver Commodities conforming to this RFQ/ specifications, or fails to deliver Commodities within the period specified in P.O. or any extension thereof
- (c) Supplier becomes insolvent or unable to pay its debts when due, or commits any act of bankruptcy, such as filing any petition in any bankruptcy, winding-up or reorganization proceeding, or acknowledges in writing its insolvency or inability to pay its debts; or the Supplier's creditors file any petition relating to bankruptcy of Supplier;
- (d) Supplier otherwise fails or refuses to perform or observe any term or condition of the Contract and such failure is not remediable or, if remediable, continues for a period of 30 days after receipt by the Supplier of notice of such failure from BRPL.

19.0 Consequences of Default.

- (a) If an Event of Default shall occur and be continuing, BRPL may forthwith terminate the Contract by written notice.
- (b) In the event of an Event of Default, BRPL may, without prejudice to any other right granted to it by law, or the Contract, take any or all of the following actions;
 - (i) present for payment to the relevant bank the Performance Bond;
 - (ii) Purchase the same or similar Commodities from any third party; and/or
 - (iii) Recover any losses and/or additional expenses BRPL may incur as a result of Supplier's default.

20.0 Penalty for Delay

20.01 If supply of items / equipments is delayed beyond the supply schedule as stipulated in purchase order then the Supplier shall be liable to pay to the Purchaser as penalty for delay, a sum of 1% (one percent) of the basic (ex-works) price for every week delay or part thereof for individual mile stone deliveries.

20.02 The total amount of penalty for delay under the contract will be subject to a maximum of ten percent (10%) of the basic (ex-works) price

20.03 The Purchaser may, without prejudice to any method of recovery, deduct the amount for such damages from any amount due or which may become due to the Supplier or from the Performance Bond or file a claim against the supplier.

21.0 Statutory variation in Taxes and Duties

The total order value shall be adjusted on account of any variations in Statutory Levies imposed by Competent Authorities by way of fresh notification(s) within the stipulated delivery period only. However, in case of reduction in taxes, duties and levies, the benefits of the same shall be passed on to BUYER.

22.0 Force Majeure

22.01 General

An "Event of Force Majeure" shall mean any event or circumstance not within the reasonable control directly or indirectly, of the Party affected, but only if and to the extent that:

- (i) Such event or circumstance materially and adversely affects the ability of the affected Party to perform its obligations under this Contract, and the affected Party has taken all reasonable precautions, due care and reasonable alternative measures in order to prevent or avoid the effect of such event on the affected party's ability to perform its obligations under this Contract and to mitigate the consequences thereof.
- (ii) For the avoidance of doubt, if such event or circumstance would not have materially and adversely affected the performance of the affected party had such affected party followed good industry practice, such event or circumstance shall not constitute force majeure.
- (iii) Such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Contract.
- (iv) Such Party has given the other Party prompt notice describing such events, the effect thereof and the actions being taken in order to comply with above clause.

22.02 Specific Events of Force Majeure subject to the provisions of above clause, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements :

- (i) The following events and circumstances:
 - a) Effect of any natural element or other acts of God, including but not limited to storm, flood, earthquake, lightning, cyclone, landslides or other natural disasters.
 - b) Explosions or fires
- (ii) War declared by the Government of India, provided that the ports at Mumbai are declared as a war zone.
- (iii) Dangers of navigation, perils of the sea.

22.03 Notice of Events of Force Majeure If a force majeure event prevents a party from performing any obligations under the Contract in part or in full, that party shall:

- i) Immediately notify the other party in writing of the force majeure events within 7(seven) working days of the occurrence of the force majeure event

- ii) Be entitled to suspend performance of the obligation under the Contract which is affected by force majeure event for the duration of the force majeure event.
- iii) Use all reasonable efforts to resume full performance of the obligation as soon as practicable
- iv) Keep the other party informed of all such efforts to resume full performance of the obligation on a regular basis.
- v) Provide prompt notice of the resumption of full performance or obligation to the other party.

22.04 Mitigation of Events of Force Majeure Each Party shall:

- (i) Make all reasonable efforts to prevent and reduce to a minimum and mitigate the effect of any delay occasioned by an Event of Force Majeure including recourse to alternate methods of satisfying its obligations under the Contract;
- (ii) Use its best efforts to ensure resumption of normal performance after the termination of any Event of Force Majeure and shall perform its obligations to the maximum extent practicable as agreed between the Parties; and
- (iii) Keep the other Party informed at regular intervals of the circumstances concerning the event of Force Majeure, with best estimates as to its likely continuation and what measures or contingency planning it is taking to mitigate and or terminate the Event of Force Majeure.

22.05 Burden of Proof In the event that the Parties are unable in good faith to agree that a Force Majeure event has occurred to an affected party, the parties shall resolve their dispute in accordance with the provisions of this Agreement. The burden of proof as to whether or not a force majeure event has occurred shall be upon the party claiming that the force majeure event has occurred and that it is the affected party.

22.06 Termination for Certain Events of Force Majeure. If any obligation of any Party under the Contract is or is reasonably expected to be delayed or prevented by a Force Majeure event for a continuous period of more than 3 months, the Parties shall promptly discuss in good faith how to proceed with a view to reaching a solution on mutually agreed basis. If a solution on mutually agreed basis cannot be arrived at within a period of 30 days after the expiry of the period of three months, the Contract shall be terminated after the said period of 30 days and neither Party shall be liable to the other for any consequences arising on account of such termination.

22.07 Limitation of Force Majeure event. The Supplier shall not be relieved of any obligation under the Contract solely because cost of performance is increased, whether as a consequence of adverse economic consequences or otherwise.

22.08 Extension of Contract Period due to Force Majeure event The Contract period may be extended by mutual agreement of Parties by way of an adjustment on account of any period during which an obligation of either Party is suspended due to a Force Majeure event.

22.09 Effect of Events of Force Majeure. Except as otherwise provided herein or may further be agreed between the Parties, either Party shall be excused from performance and neither Party shall be construed to be in default in respect of any obligations hereunder, for so long as failure to perform such obligations shall be due to and event of Force Majeure."

23.0 Transfer and Sub-Letting

23.01 The Supplier shall not sublet, transfer, assign or otherwise part with the Contract or any part thereof, either directly or indirectly, without prior written permission of the Purchaser.

24.0 Recoveries

24.01 When ever under this contract any money is recoverable from and payable by the bidder, the purchaser shall be entitled to recover such sum by appropriating in part or in whole by detecting any sum due to which any time thereafter may become due from the supplier in this or any other contract. Should the sum be not sufficient to cover the full amount recoverable the bidder shall pay to the purchaser on demand the remaining

25.0 Waiver

25.01 Failure to enforce any condition herein contained shall not operate as a waiver of the condition itself or any subsequent breach thereof.

26.0 Indemnification

26.01 Notwithstanding contrary to anything contained in this RFQ, Supplier shall at his costs and risks make good any loss or damage to the property of the Purchaser and/or the other Supplier engaged by the Purchaser and/or the employees of the Purchaser and/or employees of the other Supplier engaged by the Purchaser whatsoever arising out of the negligence of the Supplier while performing the obligations under this contract.

SECTION – IV: QUANTITY AND DELIVERY REQUIREMENT

Sl. No.	Item Description	Specification	Total Qty.	Delivery Schedule	Destination
1	Supply of 11KV Grade XLPE Insulated Aluminium Conductor Power Cable of size 3x300mm ²	Spec No SP-EWHP-01-R3	100 KM	20- 30 kms per month starting from April - 2012.	BRPL Stores Delhi

SECTION – V: PRICE FORMAT

ITEM DESCRIPTION	QTY	UoM	EX-WORKS RATE PER KM	UNIT ED as applicable	UNIT CST AGAINST C FORM /VAT as applicable	UNIT FREIGHT	UNIT LANDED COST PER KM	TOTAL LANDED COST
Supply of 11KV Grade XLPE Insulated Aluminium Conductor Power Cable of size 3x300mm ²	100	KM						

SECTION VI

BID FORM

To

Head of Department
Contracts & Material Deptt.
BSES Rajdhani Power Ltd
1st Floor, C Block
BSES Bhawan, Nehru Place
New Delhi 110019

Sir,

1 We understand that BRPL is desirous of procuring of in it's licensed distribution network area in Delhi

2 Having examined the Bidding Documents for the above named works, we the undersigned, offer to deliver the goods in full conformity with the Terms and Conditions and technical specifications for the sum of..... (figures.....) or such other sums as may be determined in accordance with the terms and conditions of the contract .The above Amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.

3 If our Bid is accepted, we under take to deliver the entire goods as) as per delivery schedule mentioned in Section IV from the date of award of purchase order/letter of intent.

4 If our Bid is accepted, we will furnish a performance bank guarantee for an amount of 10% (Ten)percent of the total contract value for due performance of the Contract in accordance with the Terms and Conditions.

5 We agree to abide by this Bid for a period of 60 days from the due date of bid submission and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

6 We declare that we have studied the provision of Indian Laws for supply of equipments/materials and the prices have been quoted accordingly.

7 Unless and until Letter of Intent is issued, this Bid, together with your written acceptance there of, shall constitute a binding contract between us.

8 We understand that you are not bound to accept the lowest, or any bid you may receive.

9 There is provision for Resolution of Disputes under this Contract, in accordance with the Laws and Jurisdiction of Contract.

Dated this..... day of..... 20.....

Signature..... In the capacity of

.....duly authorized to sign for and on behalf of

(IN BLOCK CAPITALS)

SECTION VII

FORMAT FOR EMD BANK GUARANTEE

(To be issued in a Non Judicial Stamp Paper of Rs.50/-purchased in the name of the bank)

Whereas [*name of the Bidder*] (herein after called the "Bidder") has submitted its bid dated [*date of submission of bid*] for the supply of [*name and/or description of the goods*] (here after called the "Bid").

KNOW ALL PEOPLE by these presents that WE [*name of bank*] at [*Branch Name and address*],having our registered office at [*address of the registered office of the bank*](herein after called the "Bank"),are bound unto BSES Rajdhani Power Ltd., with it's Corporate Office at BSES Bhawan Nehru Place, New Delhi -110019 ,(herein after called —the "Purchaser")in the sum of (Rupees only) for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this _____ day of _____ 20____.

THE CONDITIONS of this obligation are:

- 1 If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form ; or
2. If the Bidder, having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity:
 - (a) fails or refuses to execute the Contract Form ,if required; or
 - (b) fails or refuses to furnish the performance security, In accordance with the Instructions to Bidders/ Terms and Conditions;

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that is its demand the purchaser will note that amount claimed by it is due to it, owing to the occurrence of one or both of the two condition(s), specifying the occurred condition or condition(s).

This guarantee will remain in force up to and including Sixty (60) days after the due date of submission bid, and any demand in respect thereof should reach the Bank not later than the above date.

(Stamp & signature of the bank)

Signature of the witness(s)

COMMERCIAL TERMS AND CONDITIONS

Sl No	Item Description	AS PER BRPL	BIDDER'S CONFIRMATION
1	Validity	60 days from the due date of submission	
2	Price basis	a) Variable , FOR Delhi store basis. Prices shall be inclusive of all taxes & duties, freight upto Delhi stores. b) Unloading at stores shall be in vendor's scope c) Transit insurance in BRPL scope	
3	Payment terms	100% payment within 45 days after receipt of material at stores	
4	Delivery schedule	As per Section IV	
5	Defect Liability period	60 months after commissioning or 66 months from the last date of dispatch, whichever is earlier	
6	Penalty for delay	1% per week of delay of undelivered units or part thereof subject to maximum of 10% of total PO value of undelivered units	
7	Performance Bank Guarantee	10% of total PO value valid for 24 months after commissioning or 30 months from the last date of dispatch, whichever is earlier plus 3 months towards claim period	

CHECK LIST

Sl No	Item Description	YES/NO
1	INDEX	YES/NO
2	COVERING LETTER	YES/NO
3	BID FORM (UNPRICED) DULY SIGNED	YES/NO
4	BILL OF MATERIAL (UNPRICED)	YES/NO
5	TECHNICAL BID	YES/NO
6	ACCEPTANCE TO COMMERCIAL TERMS AND CONDITIONS	YES/NO
7	FINANCIAL BID (IN SEALED ENVELOPE)	YES/NO
8	EMD IN PRESCRIBED FORMAT	YES/NO
9	DEMAND DRAFT OF RS 1000/- DRAWN IN FAVOUR OF	BSES.....POWER LTD
10	POWER OF ATTORNEY/AUTHORISATION LETTER FOR SIGNING THE BID	YES/NO



Specification

HT cables

(11 & 33 KV : Single & Three core)

Specification No: SP- EWHP- 01- R3

Prepared by		Checked by		Approved by		Revision	Date
Name	Sign.	Name	Sign.	Name	Sign.		
Tarun		DS		DG		3	1 st Sep'2007

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General Specification

1.0.0 Codes & Standards : The cables shall be designed, manufactured and tested in accordance with the following IEC & Indian standards.

National Standards

Indian Standards	
IS- 7098	Cross linked polyethylene insulated PVC sheathed cables.
IS- 5831 : 1984	PVC insulation & sheath of electric cables.
IS- 10810 : 1984	Methods of test for cables.
IS- 8130 : 1984	Conductors for insulated electric cables and flexible cords.
IS- 3975 : 1999	Mild steel wires, formed wires and tapes for armouring of cables.

International Standards

IEC 60183	Guide to the selection of high voltage cables
IEC 60228	Conductors of insulated cables. Guide to the dimensional limits of circular conductors.
IEC 60332 - 3	Tests on electric cables under fire conditions. Part 3: Tests on bunched wires or cables.
IEC 60502-2	Extruded solid dielectric insulated power cables for rated voltages from 1kV to 30 kV.
IEC 60811 Pts 1 through 5	Common test methods for insulating and sheathing materials of electric cables.
IEC 885 Pts 1 through 3	Electric test methods for electric cables.
IEC 28	International Standard of Resistance for Copper

2.0.0	Cable construction Features	(Size & dimensions of each item mentioned under this clause shall be followed as detailed out in GTP, refer Annexure B,C,D & E)
2.1.1	Conductor	a) Electrolytic Grade stranded Aluminium Conductor / <i>Annealed Copper Conductor</i> ® b) Grade: H4 as per IS: 8130 / 84 (For Al) c) Shape: Compacted Circular d) Class 2 e) It is desirable to have Longitudinally water tight construction of conductor by water swellable powder / yarn / tapes
2.1.2	Conductor Screen	Extruded Semi Conducting material (Tapes are not acceptable)
2.1.3	Insulation	Extruded XLPE Insulation

2.1.4	Insulation Screen	<p>a) Freely strippable Semi Conducting (without application of heat)</p> <p>b) Texts "Do not Heat Freely Strippable" to be printed on insulation screen (at every 600 mm interval) ®</p>
		c) Copper Tape
2.1.5	Water Swellable Tape	<p>a) Semi Conducting Water Swellable Tape shall be provided under the copper tape on each core.</p> <p>b) Weight shall be appx. 118 gms / sqm</p> <p>c) Swell height shall be ≥ 12mm in 1min.</p> <p>d) Compatible to strippable / non-strippable semicon, over which, it is applied.</p>
2.1.6	Core Identification	For three core cables, cores shall be identified by coloured (Red, Yellow, Blue) strips applied helically / longitudinally above the copper tape.
2.1.7	Filler	All interstices, including center interstices shall be filled by PP filler. PVC filler not acceptable. (Not Applicable for Single Core cables)
2.1.8	Binder Tape	As per Manufacturer standard
2.1.9	Inner Sheath	Extruded Inner Sheath of Black PVC type ST-2
2.2.0	Armour	<p>a) Galvanised Steel round Wires / Galvanised Steel flat strip armour (For 3 core cables)</p> <p>b) Hard drawn Aluminium Wire (For 1 core cables)</p> <p>c) Minimum area of coverage of armouring shall be 90 %. The gap between any two armour strip / wire shall not be more than width of strip / diameter of armour wire.</p> <p>d) Zero negative tolerance on</p> <ul style="list-style-type: none"> • armour strip thickness & diameter of Al wire (mandatory) and • Strip width (Desirable) ®
2.2.1	Binder Tape	Rubberised cotton tape ®
2.2.2	Outer Sheath	<p>a) Extruded outer sheath of PVC (ST-2) with termite repellent</p> <p>b) The Outer Sheath shall be embossed with (Min.) :</p>

		b-1 : The voltage designation
		b-2 : Type of construction / cable code (for e.g. A2XWY)
		b-3 : Manufacturers Name or Trade mark
		b-4 : Number of Cores and nominal cross sectional area of conductors
		b-5 : The Progressive length of cable at every metre.
		b-6 : Name of buyer i.e. BSES
		b-7 : Month & Year of Manufacturing
		<i>b-8 : Batch No. / Lot No. (For traceability purpose, in case of any future problem in cable) ®</i>
2.2.3	Pulling eye & sealing of Cable end	a) A cable pulling eye as per attached Drg. No. MISC/E/4/439/1012 shall be provided at one end of cable on each drum. Sealing material shall be used for sealing gap between outer sheath / core pipes and pulling eye. Heat shrinkable sleeve shall be provided on pulling eye and outer sheath.
		b) The other end of the cable shall be sealed as per attached Drg. No. MISC/E/4/485/1063 . One PVC cap with Polyurethane compound shall form as primary sealing and heat shrink cap shall form a secondary sealing.
3.0.0	Cable Manufacturing Process (Cross linking of PE)	
3.0.1	11 KV	Dry Cure only.
3.0.2	33 KV	Dry cure only
3.0.3	Extrusion	The conductor screen, Insulation & Insulation screen shall ALL be extruded in SINGLE ONE TIME PROCESS (Triple head extrusion) to ensure homogeneity & absence of voids.
3.0.4	<i>Make of Insulation & Semi-conducting compound ®</i>	<i>Borealis / Dow Chemicals / Hanwa</i> <i>Any deviation to above shall NOT be acceptable unless and until it has been specifically approved by BSES, prior to sourcing the compounds and manufacturing of cable.</i>
4.0.0	Testing & Inspection	Tests shall be carried out in accordance with IS 7098 part-2.

	a) Routine Tests	a-1 : Measurement of Electrical Resistance
		a-2 : HV Test with power frequency AC voltage
		a-3 : PD test
	b) Type Tests	b-1: Cables must be of type tested quality. Type test reports shall be submitted for the type, size & rating of cable offered along with bid. The same should not be more than 5 years old.
		b-2 : If the manufacturer's lab is accredited by govt. /authorized body then it shall be acceptable for type testing.
		b-3: Type test on randomly selected sample to be conducted from CPRI/ERDA in case the bidder in the past has not conducted the same from BSES LOT. Type test conducted from BSES lot shall not be more than 5 years.
	c) Acceptance test	Shall be conducted as per Cl 18.2 of IS 7098 Part-2 & approved QA plan for each lot of cable. <i>Additionally, wafer boil test for checking integrity of semi-conducting layer & void and contamination test for insulation shall also required to be carried out. ®</i>
	d) Inspection	d-1 : The Buyer reserves the right to witness all tests specified on completed cables
		d-2 : The Buyer reserves the right to inspect cables at the Sellers works at any time prior to dispatch, to verify compliance with the specifications.
		d-3 : In-process and final inspection call intimation shall be given in advance to purchaser.
	e) Test certificates	Three sets of complete test certificates (routine & acceptance tests) shall be submitted along with the delivery of cables.
5.0.0	Drawing, Data & Manuals	(Refer Annexure A for further details)
5.0.1	To be submitted along with bid	The vendor has to submit:
		a) Cross sectional drawing of cable
		b) Completely filled GTP
		c) Type test certificates
		d) Dimensional drawing for pulling eye
		e) Fault level calculation for armour and copper tape screen
		f) Complete cable catalogue and Manual
5.0.2	After award of contract	Within 15 days, the seller has to submit four sets of above mentioned drawings. Data sheet of XLPE compound shall also e submitted for buyers approval.

5.0.3	Final As Built	2 sets hardcopy + One Soft copy of all documents including type & routine test certificates
6.0.0	Drum Length & tolerance	
6.0.1	33 KV, Three core	200 Mtr +- 5 %
6.0.2	33 KV, Single core	500 Mtr +- 5 %
6.0.3	11 KV, Three core	300 Mtr +- 5 %
6.0.4	11 KV, Single core	500 Mtr +- 5 %
6.0.5	Overall tolerance in cable length	+ - 2 %
6.0.6	Short length of cables	a) Manufacturer shall be required to take prior approval from Engineering & Procurement for any short length supply. For 33 KV, 3 core & single core cables, minimum acceptable single short length shall be 150 meter & 250 meter respectively and for 11 KV, minimum acceptable short length shall be 250 meter. The same will be accepted in last lot. b) Manufacturer shall not be allowed to put two cable pieces of different short lengths in same cable drum.
7.0.0	Packing, Shipping, Handling & Storage	
	a) Drum Identification Labels :	
		a-1 Drum identification number
		a-2 Cable voltage grade
		a-3 Cable construction (A2XWY)
		a-4 Number of cores and cross sectional area
		a-5 Cable quantity (Meters)
		a-6 Purchase order number with date and SAP item code
		a-7 : Total weight of cable and drum (kg)
		a-8 : Manufacturer's & Buyer's name
		a-9 : Month & Year of Manufacturing
		a-10 : Direction of rotation of drum
		a-11 : Cable length initial reading & end reading shall be marked on drum. Cable starting end shall be taken out from winding to read this drum reading with proper sealing to protect against external damage.
	b) Shipping information	The seller shall give complete shipping information concerning the weight, size of each package
	c) Transit damage	The seller shall be responsible for any transit damage due to improper packing.
	d) Type of Drum	Steel / wooden drums (Wooden drums shall be with M.S. spindle plate with bush and nut-bolts) as per relevant IS / IEC

8.0.0	Quality Assurance	<p>1. The bidder should have qualified technical & dedicated QA personnel at various stages of manufacture & testing.</p> <p>2. Factory inspection of bidder may be carried out to ascertain the quality system and process in place at manufacturing facility. The same is applicable to bidders not approved with BSES / REL</p>
8.0.1	Vendor quality plan	To be submitted for purchaser approval.
8.0.2	Inspection points	To be mutually identified & agreed in quality plan
9.0.0	Progress reporting	
9.0.1	Outline Document	To be submitted for purchaser approval for outline of production, inspection, testing, inspection, packing, dispatch, documentation programme
9.0.2	Detailed Progress report	<p>To be submitted to Purchaser once a month containing</p> <ul style="list-style-type: none"> i) Progress on material procurement ii) Progress on fabrication (As applicable) iii) Progress on assembly (As applicable) iv) Progress on internal stage inspection v) Reason for any delay in total programme vi) Details of test failures if any in manufacturing stages vii) Progress on final box up Constraints / Forward path
10.0.0	Deviation	<p>a) Deviations from this specification are only acceptable where the Seller has listed in his quotation the requirements he cannot, or does not, wish to comply with and the Buyer has accepted, in writing, the deviations before the order is placed.</p> <p>b) In the absence of a list of deviations, it will be assumed by the Buyer that the Seller complies fully with this specification.</p>

Annexure - A**1. Scope**

1.0.0	Scope	Design, manufacture, testing & supply of H.T. Power cables
2.0.0	Delivery Schedule	To be filled up on a case to case basis

2. Document Submission

Submission of drawings, calculations, catalogues, manuals, test reports shall be as follows :

	Along with offer	For Approval after award of contract	Final after approval	Remarks
Drawings	2 copies (Typical drawings)	2 copies + 1 soft copy	2 copies + 1 soft copy in CD	See Clause 5.0.0 for various drawings required
Calculations	2 copies (Typical)	2 copies + 1 soft copy	2 copies + 1 soft copy in CD	See Clause 5.0.0 for details
Catalogues	1 copy	Not applicable	2 copies + 1 soft copy in CD	
Test Report	2 copies	Not applicable	2 copies + 1 soft copy in CD	Type test and sample routine test reports

Annexure- B

GUARANTEED TECHNICAL PARTICULARS (3 Core, 11 KV)
(Separate GTP needs to be submitted for 150 & 300 sq mm cables)

Sr.	Description	Buyer's requirement	Seller's data
1.0	Purchase Req. No.	-	
2.0	Guarantee Period (Min.)	60 Months (from date of commissioning) / 66 Months (from date of receipt at purchaser's store) whichever is earlier	
3.0	Applicable IS / IEC Standard followed by vendor	IS 7098 Part-2 / IEC 60502-2	
4.0	Make	-	
5.0	Type	A2XWY	
6.0	Voltage Grade	6.35 / 11 KV	
7.0	Maximum Conductor temperature		
A	Continuous	90°C	
B	Short time	250°C	
8.0	Conductor		
A	Material and Grade	As per CI 2.1.1 a/b	
B	Size	300 / 150 sqmm	
C	No. of wires in each conductor Nos.	As per Table 2 of IS 8130	
D	Conductor Shape	As per CI 2.1.1c	
E	Dia. of wires in each conductor before compaction	Manufacturer Standard (...mm)	
F	Diameter over conductor	....mm	
G	Maximum Conductor resistance at 20 ° C	0.1 (300 sq mm) / 0.206 (150 sq mm) (Ohms / km)	
9.0	Conductor Screen		
A	Material & type	As per CI 2.1.2	
B	Thickness (Approx.)	0.50 mm.	
C	Diameter over conductor screen	.... mm	
D	Make and grade of semi-conducting compound @		
10.0	Insulation		
A	Insulation material	As per CI 2.1.3	
B	Nominal thickness	3.6 (for 150 & 300 sqmm both)	

C	Minimum thickness	3.14 (for 150 & 300 sqmm both)	
D	Diameter over Insulation (Approx.)	--- mm	
E	Make and grade of Insulation compound ®		
11.0	Insulation Screen		
A	i) Thickness of freely strippable Semi conducting screen ii) Make and grade of semi-conducting compound ® iii) Printing as per CI no. 2.1.4 b ®	0.50 mm. Yes / No (Font size of Texts)	
	iii) Thickness & other details of Water swell-able tapes	a) 0.30 mm b) Weight : 118 gm/ sqm c) Swell height shall be ≥12mm in 1min. d) Compatible to strippable / non-strippable semicon, over which, it is applied. e) Make & Grade ®	
	iv) Thickness & width of Copper tape	Thickness : 0.06 +/- 5 % or better ® Width : ... (mm)	
B	Diameter over insulation screen (Apprx)	---(mm)	
C	Fault current carrying capacity of copper tape (Necessary calculation sheet shall be attached)	...KA for ...Sec (Mfr. Std.)	
D	Diameter over laid up core (Approx.)	...mm	
E	Cable core identification	By coloured strips over cores applied helically / longitudinally	
12.0	Filler (Material and type)	As per CI 2.1.7	

	(Specify no. & size of filler at center & core interstices)		
13.0	Inner Sheath		
A	Material and type	As per CI 2.1.9	
B	Minimum thickness	0.7 mm (for 300 sqmm) / 0.6 mm (for 150 sqmm)	
C	Approx. dia. Over sheath	.....mm	
14.0	Armour		
A	Minimum Number of GI strip ®	As per Manufacturer Standard (nos.)	
B	Dia. Of individual armour wire	As per Table 4 of IS 7098 Part-2	
C	Thickness of GI strip / width of GI strip (with zero negative tolerance) ®	4 x 0.8 mm	
D	Approx. Equivalent Area	... Sqmm	
E	Area covered by armour	Min. 90 %	
F	Lay Ratio of armour		
G	Dia. over armour – Approx.	... mm	
H	Fault current carrying capacity	.....
15.0	Outer Sheath		
A	Material and type	As per CI 2.2.2	
B	Thickness (Minimum)	As per Table-5 of IS 7098 Part-2	
C	Colour	Blue	
D	Embossing as per CI 2.2.2 b8 ®	Yes / No	
16.0	Approx. overall dia.	...mm	
17.0	Standard drum length with tolerance	300 mtr +/- 5%	
18.0	Type of Drum	Steel / Wooden	
	(Specify the relevant IS / IEC, followed for drum)		
19.0	a. Cable pulling Eye provided at one running end (Refer attached basic drawing no. MISC/E/4-439/1012)	Required	
	b. End Cap (As per CI no. 2.2.3)	Required	
20.0	Weight		
	a) Net Weight of cable (Approx.)	..... Kg / Km	

	b) Weight of empty drum	... Kg	
	c) Weight of Cable with drum	... Kg	
21.0	Continuous current rating for standard I.S. condition laid Direct		
	a) In ground 30° C	.... Amps	
	b) In duct 30° C	.... Amps	
	c) In Air 40° C	.... Amps	
22.0	Short circuit current carrying capacity for 1 sec of conductor	.... K Amp	
23.0	Electrical Parameters at Maximum Operating temperature:		
A	AC Resistance	..... ( Ohm/Km)	
B	Reactance at 50 C/s	..... ( Ohm/Km)	
C	Impedance	..... ( Ohm/Km)	
D	Zero sequence impedance	..... ( Ohm/Km)	
E	Positive sequence impedance	..... ( Ohm/Km)	
F	Negative sequence impedance	..... ( Ohm/Km)	
G	Capacitance	...(Micro farad / KM)	
24.0	Recommended minimum bending radius	--- x O/D	
25.0	Derating factor for following Ambient Temperature in	Ground / Air	
	a) At 30° C		
	b) At 35° C		
	c) At 40° C		
	d) At 45° C		
	e) At 50° C		
26.0	Group factor for following Nos. of cables laid	Touching Trefoil	
i)	3 Nos.		
ii)	4 Nos.		
iii)	5 Nos.		
iv)	6 Nos.		
27.0	Recommended pressure for laying cable using power winch	30 N / mm ²	
28.0	Process of Cross linking of Polyethylene	Dry Cure only	
29.0	Type test (Applicable report no., date with type & size of cable to be mentioned)	Required	

Annexure- C

GUARANTEED TECHNICAL PARTICULARS (Three Core, 33 KV, 400 sqmm)

Sr.	Description	Buyer's requirement	Seller's data
1.0	Purchase Req. No.	-	
2.0	Guarantee Period (Min.)	60 Months (from date of commissioning) / 66 Months (from date of receipt at purchaser's store) whichever is earlier	
3.0	Applicable IS / IEC Standard followed by vendor	IS 7098 Part-2 / IEC 60502-2	
4.0	Make	-	
5.0	Type	A2XWY	
6.0	Voltage Grade	19 / 33 KV	
7.0	Maximum Conductor temperature		
A	Continuous	90°C	
B	Short time	250°C	
8.0	Conductor		
A	Material and Grade	As per CI 2.1.1 a/b	
B	Size	400 sqmm	
C	No. of wires in each conductor Nos.	As per Table 2 of IS 8130	
D	Conductor Shape	As per CI 2.1.1c	
E	Dia. of wires in each conductor before compaction	Manufacturer Standard(...mm)	
F	Diameter over conductor	...mm	
G	Maximum Conductor resistance at 20 ° C	0.0778 (Ohms / km)	
9.0	Conductor Screen		
A	Material & type	As per CI 2.1.2	
B	Thickness (Approx.)	0.50 mm.	
C	Diameter over conductor screen	... mm	
D	Make and grade of semi-conducting compound @		
10.0	Insulation		
A	Insulation material	As per CI 2.1.3	
B	Nominal thickness	8.8 mm	
C	Minimum thickness	7.82 mm	
D	Diameter over Insulation (Approx.)	--- mm	
E	Make and grade of Insulation		

	<i>compound</i> ®			
11.0	Insulation Screen			
A		i) Thickness of freely strippable Semi conducting screen	0.50 mm.	
		ii) <i>Make and grade of semi-conducting compound</i> ®		
		iii) <i>Printing as per CI no. 2.1.4 b</i> ®	Yes / No (Font size of Texts) ®	
		iii) Thickness & width of Copper tape	Thickness : 0.06 +/- 5 % or better ® Width :mm	
		iv) Thickness & other details of Water swell-able tapes	a) 0.30 mm b) Weight : 118 gm/ sqm c) Swell height shall be ≥12mm in 1min. d) Compatible to strippable / non-strippable semicon, over which, it is applied. e) <i>Make & Grade</i> ®	
B	Diameter over insulation screen (Apprx)		....(mm)	
C	Fault current carrying capacity of copper tape (Necessary calculation sheet shall be attached)		...KA for ...Sec	
D	Diameter over laid up core (Approx.)		...mm	
E	Cable core identification		By coloured strips over cores applied helically / longitudinally	
12.0	Filler (Material and type) (Specify no. & size of filler at center & core interstices)		As per CI 2.1.7	
13.0	Inner Sheath			
A	Material and type		As per CI 2.1.9	

B	Minimum thickness	0.7 mm	
C	Approx. dia. Over sheath	.....mm	
14.0	Armour		
A	Minimum Number of Steel wires / GI strip @	As per Manufacturer Standard (nos.)	
B	Dia. Of individual armour wire	As per Table 4 of IS 7098 Part-2	
C	Thickness of GI strip / width of GI strip (with zero negative tolerance) @	4 x 0.8 mm	
D	Approx. Eqvlt. Area	... Sqmm	
E	Area covered by armour	Min. 90 %	
F	Lay ratio of armour	.....
G	Dia. over armour – Approx.	...mm	
H	Fault current carrying capacity	....
15.0	Outer Sheath		
A	Material and type	As per CI 2.2.2	
B	Thickness (Minimum)	As per Table-5 of IS 7098 Part-2	
C	Colour	Blue	
D	Embossing as per CI 2.2.2 b8 @	Yes / No	
16.0	Approx. overall dia.	....mm	
17.0	Standard drum length with tolerance	200 Mtr +/- 5%	
18.0	Type of Drum	Steel / Wooden	
19.0	a. Cable pulling Eye provided at one running end	Required	
	b. End cap (as per CI no. 2.2.3)	Required	
20.0	Weight		
	a) Net Weight of cable (Approx.)	.... Kg / Km	
	b) Weight of empty drum	... Kg	
	c) Weight of Cable with drum	... Kg	
21.0	Continuous current rating for standard I.S. condition laid Direct		
	a) In ground 30° C	.... Amps	
	b) In duct 30° C	.... Amps	
	c) In Air 40° C	.... Amps	
22.0	Short circuit current carrying capacity for 1 sec of conductor	.... K Amp	
23.0	Electrical Parameters at Maximum Operating temperature:		

A	AC Resistance	.... ( Ohm/Km)	
B	Reactance at 50 C/s	.... ( Ohm/Km)	
C	Impedance	.... ( Ohm/Km)	
D	Zero sequence impedance	.... ( Ohm/Km)	
E	Positive sequence impedance	.... ( Ohm/Km)	
F	Negative sequence impedance	.... ( Ohm/Km)	
G	Capacitance	... (Micro farad / KM)	
24.0	Recommended minimum bending radius	--- x O/D	
25.0	Derating factor for following Ambient Temperature in	Ground / Air	
	a) At 30° C		
	b) At 35° C		
	c) At 40° C		
	d) At 45° C		
	e) At 50° C		
26.0	Group factor for following Nos. of cables laid	Touching Trefoil	
	i) 3 Nos.		
	ii) 4 Nos.		
	lii) 5 Nos.		
	iv) 6 Nos.		
27.0	Recommended pressure for laying cable using power winch	30 N / mm ²	
28.0	Process of Cross linking of Polyethylene	Dry Cure only	
29.0	Type test (Applicable report no., date with type & size of cable to be mentioned)	Required	

Annexure- D

GUARANTEED TECHNICAL PARTICULARS (11 KV, Single Core)

Sr.	Description	Buyer's requirement	Seller's data
1.0	Purchase Req. No.	-	
2.0	Guarantee Period	60 Months (from date of commissioning) / 66 Months (from date of receipt at purchaser's store) whichever is earlier	
3.0	Applicable IS / IEC Standard followed by vendor	IS 7098 Part-2 / IEC 60502-2	
4.0	Make	-	
5.0	Type	A2XWaY	
6.0	Voltage Grade	6.35/11 KV	
7.0	Maximum Conductor temperature		
A	Continuous	90°C	
B	Short time	250°C	
8.0	Conductor		
A	Material and Grade	As per CI 2.1.1 a/b	
B	Size	1000 sqmm	
C	No. of wires in each conductor	As per Table 2 of IS 8130	
D	Conductor Shape	As per CI 2.1.1c	
E	Dia. of wires in each conductor before compaction (mm)	As per Manufacturer standard	
F	Diameter over conductor mm	--	
G	Maximum Conductor resistance at 20 ° C	0.0291 (Ohm/Km)	
9.0	Conductor Screen		
A	Material & type	As per CI 2.1.2	
B	Thickness (Approx.)	0.50 mm	
C	Diameter over conductor screen	---- (mm)	
D	Make and Grade of semi-conducting compound		
10.0	Insulation		
A	Insulation material	As per CI 2.1.3	
B	Nominal thickness	3.6 (mm)	
C	Minimum thickness	3.14 (mm)	
D	Diameter over Insulation (Approx.)	--- (mm)	
E	Make and Grade of Insulation compound @		

11.0	Insulation Screen			
A		i) Thickness of freely strippable Semi conducting screen	0.50 mm.	
		ii) Make and grade of semi-conducting compound ®		
		iii) Printing as per CI no. 2.1.4 b ®	Yes / No (Font size of Texts)	
		iii) Thickness & other details of Water swell-able tapes	a) 0.30 mm Thick b) Weight : 118 gm / sqm c) Swell height shall be ≥12mm in 1min. d) Compatible to strippable / non-strippable semicon, over which, it is applied. e) Make & Grade ®	
		iv) Thickness and width of Copper tape	Thickness : 0.06 +/- 5 % or better ® Width :	
B	Diameter over insulation screen (Apprx)		.....mm	
C	Fault current carrying capacity of insulation screen (Necessary calculation sheet shall be attached)		.....kA.....sec	
12.0	Inner Sheath			
A	Material and type		As per CI 2.1.9	
B	Minimum thickness		0.6 mm	
C	Approx. dia. Over sheath		.....mm	
13.0	Armour			
A	Minimum Number of Aluminium wires (Nos.) ®		As per Manufacturer Standard (nos.)	
B	Dia. Of individual wire (With Zero negative tolerance)		As per Table 4 of IS 7098 Part-2	
C	Approx. Eqvlt. Area		.... Sq mm	
D	Area covered by armour		Min. 90 %	

E	Lay ratio of armour	.....
F	Dia. over armour – (Approx)	..... (mm)	
G	Fault current carrying capacity (Attach calculation sheet)	(...kA...sec)	
14.0	Outer Sheath		
A	Material and type	As per Cl 2.2.2	
B	Thickness (Minimum)	2.2 mm	
C	Colour	Blue	
D	Embossing as per Cl 2.2.2 b8 @	Yes / No	
15.0	Approx. overall dia. (mm)	.....
16.0	Standard drum length with tolerance (meters)	500 +/-5%	
17.0	Type of cable drum	Steel / Wooden	
18.0	a. Cable pulling Eye provided at one running end & end cap provided at other end.	Required	
	b. End Cap (as per Cl. 2.2.3)	Required	
19.0	Weight		
	a) Net Weight of cable – Approx.	.....( Kg/Km.)	
	b) Weight of empty drum	...Kg	
	c) Weight of Cable with drum	...Kg	
20.0	Continuous current rating for standard I.S. condition laid Direct		
	a) In ground 30° C	.... Amps	
	b) In duct 30° C	.... Amps	
	c) In Air 40° C	.... Amps	
21.0	Short circuit current for 1 sec of conductor.	....(Kamp)	
22.0	Electrical Parameters at Maximum Operating temperature:		
A	Resistance (AC Resistance)	....( Ohm/Km)	
B	Reactance at 50 C/s	....( Ohm/Km)	
C	Impedance	....( Ohm/Km)	
D	Zero sequence impedance	....( Ohm/Km)	
E	Positive sequence impedance	....( Ohm/Km)	
F	Negative sequence impedance	....( Ohm/Km)	
G	Capacitance	...(Micro Farad / KM)	
23.0	Recommended minimum bending radius	--- x O/D	
24.0	Derating factor for following Ambient Temperature in	Ground / Air	
	a) At 30° C		
	b) At 35° C		
	c) At 40° C		

	d) At 45° C		
	e) At 50° C		
25.0	Group factor for following Nos. of cables laid	Touching Trefoil	
	i) 3 Nos.		
	ii) 4 Nos.		
	lii) 5 Nos.		
	iv) 6 Nos.		
26.0	Recommended pressure for laying cable using power winch	30 N / mm ²	
27.0	Process of Cross linking of Polyethylene	Dry Cure	
28.0	Type test	(Applicable report no., date with type & size of cable to be mentioned)	

Annexure- E

GUARANTEED TECHNICAL PARTICULARS (33 KV, Single Core)

Sr.	Description	Buyer's requirement	Seller's data
1.0	Purchase Req. No.	-	
2.0	Guarantee Period	60 Months (from date of commissioning) / 66 Months (from date of receipt at purchaser's store) whichever is earlier	
3.0	Applicable IS / IEC Standard followed by vendor	IS 7098 Part-2 / IEC 60502-2	
4.0	Make	-	
5.0	Type	A2XWaY	
6.0	Voltage Grade	19/33 KV	
7.0	Maximum Conductor temperature		
A	Continuous	90°C	
B	Short time	250°C	
8.0	Conductor		
A	Material and Grade	As per CI 2.1.1 a/b	
B	Size	1000 sqmm	
C	No. of wires in each conductor	As per Table 2 of IS 8130	
D	Conductor Shape	As per CI 2.1.1c	
E	Dia. of wires in each conductor before compaction (mm)	As per Manufacturer standard	
F	Diameter over conductor mm	--	
G	Maximum Conductor resistance at 20 °C	Al : 0.0291 (Ohm/ Km) Cu : 0.0176 (Ohm / Km) ®	
9.0	Conductor Screen		
A	Material & type	As per CI 2.1.2	
B	Thickness (Approx.)	0.50 mm	
C	Diameter over conductor screen	---- (mm)	
D	Make and Grade of Semi-conducting Compound ®		
10.0	Insulation		
A	Insulation material	As per CI 2.1.3	
B	Nominal thickness	8.8 (mm)	
C	Minimum thickness	7.82 (mm)	

D	Diameter over Insulation (Approx.)	---	(mm)	
E	Make and Grade of Insulation compound ®			
11.0	Insulation Screen			
A		i) Thickness of freely strippable Semi conducting screen	0.50 mm.	
		ii) Make and grade of semi-conducting compound ®		
		iii) Printing as per CI no. 2.1.4 b ®	Yes / No (Font size of Texts)	
		iii) Thickness and width of Copper tape	Thickness : 0.06 +/- 5 % or better ® Width:	
		iv) Thickness & other details of Water swell-able tapes	a) 0.30 mm b) Weight : 118 gm/ sqm c) Swell height shall be ≥12mm in 1min. d) Compatible to strippable / non-strippable semicon, over which, it is Applied. e) Make & Grade ®	
B	Diameter over insulation screen (Apprx)	....mm		
C	Fault current carrying capacity of insulation screen (Necessary calculation sheet shall be attached)	.....kA.....sec		
12.0	Inner Sheath			
A	Material and type	As per CI 2.1.9		
B	Minimum thickness	0.7 mm		
C	Approx. dia. Over sheath	....mm		
13.0	Armour			
A	Number of Aluminium wires (Nos.)	As per Manufacturer Standard (nos.)		
B	Dia. Of individual wire	As per Table 4 of IS 7098 Part-2		
C	Approx. Eqvlt. Area	.... Sq mm		

D	Area covered by armour	Min. 90 %	
E	Lay ratio of armour	.....
F	Dia. over armour – (Approx)	..... (mm)	
H	Fault current carrying capacity (Attach calculation sheet)	(...kA....sec)	
14.0	Outer Sheath		
A	Material and type	As per CI 2.2.2	
B	Thickness (Minimum)	2.52 mm	
C	Colour	Blue	
D	Embossing as per CI 2.2.2 b8 ®		
15.0	Approx. overall dia. (mm)	.....
16.0	Standard drum length with tolerance (meters)	500 + / - 5%	
17.0	Type of cable drum as per IS / IEC	Steel / Wooden	
18.0	a. Cable pulling Eye provided at one running end & end cap provided at other end	Required	
	b. End cap (as per CI 2.2.3)	Required	
19.0	Weight		
	a) Net Weight of cable – Approx.	.....( Kg/Km.)	
	b) Weight of empty drum	...Kg	
	c) Weight of Cable with drum	...Kg	
20.0	Continuous current rating for standard I.S. condition laid Direct		
	a) In ground 30° C	.... Amps	
	b) In duct 30° C	.... Amps	
	c) In Air 40° C	.... Amps	
21.0	Short circuit current for 1 sec of conductor.	....(KAmp)	
22.0	Electrical Parameters at Maximum Operating temperature:		
A	Resistance (AC Resistance)	....( Ohm/Km)	
B	Reactance at 50 C/s	....( Ohm/Km)	
C	Impedance	....( Ohm/Km)	
D	Zero sequence impedance	....( Ohm/Km)	
E	Positive sequence impedance	....( Ohm/Km)	
F	Negative sequence impedance	....( Ohm/Km)	
G	Capacitance	...(Micro Farad / KM)	
23.0	Recommended minimum bending radius	--- x O/D	
24.0	De-rating factor for following Ambient Temperature in	Ground / Air	
	a) At 30° C		
	b) At 35° C		

	c) At 40° C		
	d) At 45° C		
	e) At 50° C		
25.0	Group factor for following Nos. of cables laid	Touching Trefoil	
i)	3 Nos.		
ii)	4 Nos.		
iii)	5 Nos.		
iv)	6 Nos.		
26.0	Recommended pressure for laying cable using power winch	30 N / mm ²	
27.0	Process of Cross linking of Polyethylene	Dry Cure only	
28.0	Type test (Applicable report no., date, type & size of cable to be mentioned)	Required	



