

Tender Notification for

**Rate contract for supply of 1.1KV LT
FRLS XLPE Insulated 4C X 300
sq.mm & LTAB 3C X 150sq.mm cable**

NIT NO.: CMC/BR/21-22/RB/PR/FH/0961, DT-04.11.2021

Due Date for Submission: 24.11.2021, 1600hrs

**BSES RAJDHANI POWER LIMITED,
BSES Bhawan, Nehru Place, New Delhi-
110019 Corporate Identification Number:
U74899DL2001PLC111527 Telephone Number:
+91 11 3009 9999
Fax Number: +91 11 2641 9833 Website:
www.bsedelhi.com**

SECTION – I: REQUEST FOR QUOTATION**Event Information**

BRPL invites sealed tenders in 2 envelopes for **Rate contract for supply of 1.1KV LT FRLS XLPE Insulated 4C X 300 sq.mm & LTAB 3C X 150sq.mm cable** from reputed manufacturers. The bidder must qualify the technical requirements as specified in clause 2.0 stated below. All envelopes shall be duly super scribed as

“PACKAGE-A” RATE CONTRACT FOR SUPPLY OF 1.1KV LT FRLS XLPE POWER CABLE OF SIZE 4CX300 SQ.MM

“PACKAGE-B” RATE CONTRACT FOR SUPPLY OF LT AERIALLY BUNCHED CABLES OF SIZES 3CX150 SQ.MM

S.No	Item	Technical Specification	Estimated Cost	Qty.	Delivery
1	RATE CONTRACT FOR SUPPLY OF 1.1KV LT FRLS XLPE POWER CABLE OF SIZE 4CX300 SQ.MM	SP-EWLP-01-R5	13.5 Cr	150 KM	New Delhi Stores
2	RATE CONTRACT FOR SUPPLY OF LT AERIALLY BUNCHED CABLES OF SIZES 3CX150 SQ.MM	GN101-01-SP-51-02	24 Cr	400 KM	

Note: - The rates quoted shall remain valid for one year from the date of LOI/RC

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.

The schedule of specifications with detail terms & conditions can be obtained from address given below against submission of non-refundable demand draft of **Rs.1180/- (With GST)** drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi. The tender documents & detail terms and conditions can also be downloaded from the website **“www.bsesdelhi.com --> Tenders --> BSES Rajdhani Power Ltd --> Open Tenders”**.



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.

The bids shall be

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

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.

Tender will be summarily rejected if:

- **Earnest Money Deposit (EMD)** of value for **PACKAGE-A** IS INR **13,50,000/-** and for **PACKAGE-B** is INR **24,00,000/-** 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.
- The offer does not contain "FOR NEW DELHI" price indicating break-up towards all taxes, duties & freight.
- Complete Technical details are not enclosed.
- Tender is received after due date and time.

2.0 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 BRPL has a right to disqualify those bidders who do not meet these requirements.

PACKAGE-A

1. The bidder must be a manufacturer of LT Power Cables and must possess valid BIS License for working voltage upto 1100V
2. The bidder should have plant installed capacity to supply of minimum 20-30 KM per month
3. The bidder should have qualified technical & qualified QA personnel at various stages of manufacture & testing.
4. The bidder should have supplied at least 200 KMS of similar cross-sectional area or higher to any major utilities/SEB's in last 3 years from the NIT date. Out of the above, 50% must be in successful operation at least for 2 years. Performance Certificate shall be furnished as a back- up to this. Year wise summary sheet is to be attached against this.



5. Bidder should have average Annual Sales Turnover of Rs 200 Crores or more in last 3 financial years. (FY 2018-19, 2019-20 & 2020-21).
6. The bidder must possess valid ISO 9001:2000 certification.
7. The bidder must submit an undertaking (self certificate) that the bidder has not been blacklisted / debarred by any central / state government institution including electricity boards.

NOTE: - For SL NO-4 of qualification criteria data to be submitted as per annexure-VII

PACKAGE-B

1. The bidder must be a manufacturer of LT Power Cables and must possess valid BIS License for working voltage up to 1100V.
2. The bidder should have plant installed capacity to supply of minimum 30-40 KM per month.
3. The bidder should have qualified technical & qualified QA personnel at various stages of manufacture & testing.
4. The bidder should have supplied at least 500 KM Cable of similar cross-sectional area or higher to any major utilities/SEB's in last 3 years from the NIT date. Out of the above, 50% must be in successful operation at least for 2 years. Performance Certificate shall be furnished as a back-up to this.
5. Bidder should have average Annual Sales Turnover of Rs 80 Crores or more in last 3 financial years (FY 2018-19, 2019-20 & 2020-21).
6. The bidder must possess valid ISO 9001:2000 certification.
7. The bidder must submit an undertaking (self certificate) that the bidder has not been blacklisted / debarred by any central / state government institution including electricity boards

NOTE: - For SL NO-4 of qualification criteria data to be submitted as per annexure-VII

3.0 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 same will be intimated to all participating bidders through website.



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 (in duplicate)

EMD

Non-refundable demand draft for Rs 1180/- 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 etc
Power of Attorney for signing the bid

PART B: FINANCIAL BID comprising (1 original only)

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

TIME SCHEDULE

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

S.No.	Steps	Date
1	Date of sale of bid documents	04.11.2021, onwards
2	Last date of Queries, if any	09.11.2021, 1500hrs
3	Last date of receipt of bid documents	24.11.2021, 1600hrs
4	Date & time of opening of tender – Part A	24.11.2021, 1615hrs
5	Date & Time of opening of Part B of qualified bidders	Only Successful bidders

NOTE: In case last date of submission of bids & date of opening of bids is declared as holiday in BRPL office, the last date of submission will be following working day at the same time.

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 super scribing 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.

Bidders are requested to submit the bid in one Original plus one copy in duplicate

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 Purchaser reserves the right to assess bidder's 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.

Part –C : E- Bidding and Reverse Auction through SAP-SRM Module

Purchase reserves the right to use the reverse auction through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are techno-commercial qualified on the basis of tender requirements shall participate in reverse auction.

Notwithstanding anything stated above, the Purchaser reserves the right to assess bidder's 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

Award Decision

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.

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.

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.

QTY VARIATION: The purchaser reserves the rights to vary the quantity by (±) **30%** of the tender quantity.

Repeat Order: BRPL reserves the right to place repeat order at the same rates & terms and conditions as per this tender against additional requirement subject to mutual agreement between BRPL & supplier



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. Bidders who violates the marketplace rules or engage 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.

6.0 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.

7.0 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

Contact Person	Technical	Commercial
	to CES	To:- faiyaz.hussain@relianceada.com
	Copy to : Pankaj Goyal	Copy to : Pankaj Goyal
Address	BSES RAJDHANI Power Ltd ,5th Floor , 20 No Building, Nehru Place, New Delhi 110019	C&M Deptt. 1st Floor , D-Block, BSES RAJDHANI Power Ltd BSES Bhawan, Nehru Place, New Delhi 110019
Email	Amit.as.tomar@relianceada.com	Pankaj.goyal@relianceada.com

SECTION – II: INSTRUCTION TO BIDDERS

A. GENER

AL 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. The Purchaser has now floated this tender for procurement of material as notified earlier in this bid document.

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.

DISCLAIMER

- 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.

- 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 any way from the selection process for the Supply.

- 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.

- 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

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

Volume - I

- ☐ Request for Quotation (RFQ) - Section - I
- ☐ Instructions to Bidders (ITB) - Section - II
- ☐ Terms & Conditions of Contract (T&C) - Section -III
- ☐ Delivery schedule - Section IV
- ☐ Technical Specifications (TS) - Section V (Pages Enclosed)

Volume - II

- ☐ Price Format - Annexure -I
- ☐ Bid Form - Annexure -II
- ☐ Acceptance Form for Reverse -
Annexure -IIIAuction
- ☐ EMD BG Format - Annexure -1V
- ☐ Commercial Terms & Conditions- Annexure -V
- ☐ No Deviation Sheet - Annexure -VI

5.00 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.

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 6.01, and it will be notified in web site www.bsesdelhi.com and the same will be binding on them.

- 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



- extend due date of submission
- modify tender document in part/whole
- cancel the entire tender

Bidders are requested to visit website regularly for any modification/clarification/corrigendum/addendum of the bid documents.

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.

DOCUMENTS COMPRISING THE BID

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

Bid Form, Price & other Schedules (STRICTLY AS PER FORMAT) and Technical Data Sheets completed in accordance with Technical Specification.

All the Bids must be accompanied with the required EMD as mentioned in the Section-I against each tender.

Tender documents duly stamped and signed on each page by authorized signatory.

9.0 BID FORM

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.

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:

Banker's Cheque/Demand Draft/Pay Order drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi.

A bank guarantee issued by any scheduled bank strictly as per the format enclosed and shall be valid for a period of thirty (30) days beyond the validity of the bid



The EMD may be forfeited in case of:

- ✓ the Bidder withdraws its bid during the period of specified bid validity or
- ✓ the case of a successful Bidder, if the Bidder does not
 - accept the Purchase Order, or
 - Furnish the required performance security BG.

BID PRICES

- 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.

- 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.

Prices quoted by the Bidder shall be **"Firm"** and not subject to any price adjustment during the performance of the Contract. **A Bid submitted with an adjustable price/Price Variation Clause will be treated as non-responsive and rejected.**

11.0 BID CURRENCIES

Prices shall be quoted in Indian Rupees Only.

12.0 PERIOD OF VALIDITY OF BIDS

12.01- Bids shall remain valid for 120 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

13.0 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.

14.0 FORMAT AND SIGNING OF BID

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.

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-Attorney accompanying the Bid.

14.02 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

15.0 SEALING AND MARKING OF BIDS

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.

The Technical Documents and the EMD shall be enclosed in a sealed envelope and the said envelope shall be super scribed with —"**Technical & EMD**". The price bid shall be inside another sealed envelope with super scribed 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 super scribed with —"Tender Notice No.& Due date of opening".

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.

16.0 DEADLINE FOR SUBMISSION OF BIDS

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**

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

17.0 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.

18.0 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.

19.0 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

20.0 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.

21.0 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.

22.0 PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS

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.

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.

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.

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.

23.0 EVALUATION AND COMPARISON OF BIDS

The evaluation of Bids shall be done based on the delivered cost competitiveness basis.

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.

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:

Delivery Schedule

Conformance to Qualifying

Criteria 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.

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

24.0 CONTACTING THE PURCHASER



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.

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.

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

Submission of bids shall not automatically construe qualification for evaluation. The Purchaser reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time 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.

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.

Splitting of tendered quantity among two or more bidders:

BSES reserves the right to split the tender quantity among techno- commercially qualified bidders on account of delivery requirement in tender quantity under procurement.

For arranging timely procurement of material and to have uniform practice of distribution of quantity amongst eligible bidders, following procedure shall be applicable:

The tender quantity shall be split in following ratio:

- (i) If the quantity is to be split among 2 bidders, it will be done in the ratio of 70:30 on L1 price.
- (ii) If the quantity is to be split among 3 bidders, it will be done in the ratio of 60:25:15 on L1 price.

Any deviation in regards to above will have deviation approval from management.



27.0 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.

28.0 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 within 7 days of issue of the letter of intent /Notification of Award by Purchaser.

29.0 PERFORMANCE BANK GAURANTEE

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.

30.0 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:

- "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
- "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.

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

SECTION – III: TERMS AND CONDITIONS

1.0 General Instructions

All the Bids shall be prepared and submitted in accordance with these instructions.

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.

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.

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.

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.

Definition of Terms

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

"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.

"Supply" shall mean the Scope of Contract as described.

"Specification" shall mean collectively all the terms and stipulations contained in those portions of this bid document known as RFQ, Commercial Terms & Condition, and Instructions to Bidders, Technical Specifications and the Amendments, Revisions, Deletions or Additions, as may be made by the Purchaser from time to time.



"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.

"Month" shall mean the calendar month and "Day" shall mean the calendar day.

"Codes and Standards" shall mean all the applicable codes and standards as indicated in the Specification.

"Offer Sheet" shall mean Bidder's firm offer submitted to BRPL in accordance with the specification. "Contract" shall mean the "Letter of Acceptance/Purchase Order" issued by the Purchaser. "Contract Price" shall mean the price referred to in the "Letter of Acceptance/Purchase Order".

"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.

"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

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.

Bidder shall have to quote for the Bill of quantities as listed in Section – IV of this RFQ.

Quantity variation and additional requirement if any shall be communicated to successful bidder during project execution.



All relevant drawings, data and instruction manuals.

5.0 Quality Assurance and Inspection

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. In case of standard items, BRPL shall forward the standard QAP which is to be follow by vendor during manufacturing.

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.

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.

On completion of manufacturing the items can only be dispatched after receipt of dispatch instructions issued by the Purchaser.

All in-house testing and inspection shall be done without 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.

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

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.

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.

7.0 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 site/ stores inclusive of packing, forwarding, loading at manufacturer's premises, Freight & GST.

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.

Terms of payment and billing

For Supply of Equipments:

100% payment shall be made within 45 days from the date of receipt of

material at store/ site 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 as mentioned earlier, the prices shall remain valid and firm till contract completion.

10.0 Performance Guarantee

The bidder 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.



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

11.0 Forfeiture

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.

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, labor 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:

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

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

Events of Default

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.

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

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.

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

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 onto BUYER.

Force Majeure

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.

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.
 - i. Dangers of navigation, perils of the sea.

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.

Mitigation of Events of Force Majeure Each Party shall:

- 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;
- 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
- 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.

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.

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.

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.

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.

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 an 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 Whenever 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 deducting 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

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

Indemnification

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

SECTION – IV:**QUANTITY AND DELIVERY REQUIREMENT**

S.No	Item	Technical Specification	Estimated Cost	Qty.	Delivery
1	RATE CONTRACT FOR SUPPLY OF 1.1KV LT FRLS XLPE POWER CABLE OF SIZE 4CX300 SQ.MM	SP-EWLP-01-R5	13.5 Cr	150 KM	New Delhi Stores
2	RATE CONTRACT FOR SUPPLY OF LT AERIALY BUNCHED CABLES OF SIZES 3CX150 SQ.MM	GN101-01-SP-51-02	24 Cr	400 KM	

SECTION – V

TECHNICAL SPECIFICATION (TS)

**Rate contract for supply of 1.1KV LT FRLS XLPE Insulated
4C X 300 sq.mm & LTAB 3C X 150sq.mm cable**

**NIT NO.: CMC/BR/21-22/RB/PR/FH/0961,
DT-04.11.2021**



**Technical Specification for
LT POWER CABLE WITH FRLS OUTER SHEATH
(Single & Multi-Core)**

Specification no – SP-EWLP-01-R5

Prepared By		Reviewed By		Approved By		Rev /Pa ges	Date
Name	Sign	Name	Sign	Name	Sign		
Rohit Patil		Amit Tomar		K. Sheshadri		R5/ 22	02.03.2020

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TECHNICAL SPECIFICATION OF LT POWER CABLE

RECORD OF REVISION

Sr. No.	Revision No.	Item/Cl. No.	Nature of Change	Approved By
1	R2	2.0	National & International Standards added	VP
2	R2	3.6 (c)	UV resistance test shall be carried out on all size of cable	VP
3	R2	6.4	Type tests Cl. Changed.	VP
4	R2	4.1 & 4.2	Cable Drum as per IS 10418	VP
5	R2	4.3	For 2C X 10 mm ² cable drum length – 1000 +/- 5% Mtr	VP
6	R3	ANNEXTUE- C	New size cable added 1.1 kV 1CX1000 mm ²	KS
7	R4	3.6	Drum number laser printing on every meter of cable outer sheath	KS
8	R5	2.0	National & International Standards added	KS
9	R5	3.6	FRLS outer sheath	KS
10	R5	3.9	FRLS outer sheath properties	KS
11	R5	6.5	Acceptance Test	KS
12	R5	Annexure-E	Sub vendor list	KS

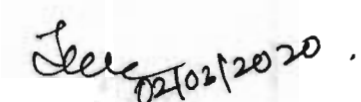
Prepared By


Rohit Patil

Reviewed By


Amit Tomar

Approved By


K. Sheshardri


TECHNICAL SPECIFICATION OF LT POWER CABLE**1.0 SCOPE OF SUPPLY**

The specification covers design, manufacture, shop testing, packing and delivery of 1100 Volts grade, Aluminium conductor XLPE insulated multi core power cables.

2.0 CODES & STANDARDS

The cables shall be designed, manufactured and tested in Accordance with the following Indian & IEC standards.

2.1	IS- 7098 (Part-1)	Cross linked polyethylene insulated PVC sheathed cables for working voltages upto and including 1100V.
2.2	IS- 6474	Polyethylene insulation & sheath of electric cables.
2.3	IS- 5831	PVC insulation and sheath of electrical cables.
2.4	IS : 10810	Methods of tests for cables.
2.5	IS : 8130	Conductors for insulated electrical cables and flexible cords.
2.6	IS : 3975	Low carbon galvanized steel wires, formed wires and tapes for armouring of cables.
2.7	IS- 4026	Aluminum ingots, billets and wire bars (EC grade)
2.8	IS-5484	EC Grade aluminium rod produced by continuous casting and rolling
2.9	IS : 10418	Specification for drums for electric cables.
2.10	IS : 3961	Recommended current ratings for cables.
2.11	IS:1255	Installation and Maintenance of power cables upto and including 33 kV rating.
2.12	IS:4826	Specification for hot-dipped galvanized coatings on round steel wires
2.13	IS:1717	Metallic Materials – Wire – Simple torsion test
2.14	IEC 60228	Conductors of insulated cables. Guide to the dimensional limits of circular conductors.
2.15	IEC 60331	Fire resisting characteristics of electric cables.
2.16	IEC 60332 – 3	Tests on electric cables under fire conditions. Part 3: Tests on bunched

 BSES BSES Rajdhani Power Ltd		SP-EWLP-01-R5
TECHNICAL SPECIFICATION OF LT POWER CABLE		
		wires or cables.
2.17	IEC 60502	Extruded solid dielectric insulated power cables for rated voltages from 1kV to 30 kV.
2.18	IEC 60754 – 1	Test on gases evolved during combustion of materials from cables. Part 1: Determination of the amount of halogen acid gas evolved during combustion of polymeric material taken from cables.
2.19	IEC 60811	Common test methods for insulating and sheathing materials of electric cables
2.20	IEC 60885	Electric test methods for electric cables
2.21	IEC 60304	Standard colours for insulation for low frequency cables and wires.
2.22	IEC 60227	PVC insulated cables of rated voltages up to and including 460/760 V.
2.23	IEC 1034	Measurement of smoke density of electric cables burning under defined conditions
2.24	ASTMD 2843 (R5)	Standard Test Method for density of Smoke from the burning or decomposition of cables
2.25	ASTM 2863 (R5)	Standard Test Method for measuring of minimum oxygen concentration
2.26	IEC 60754-1 (R5)	Test on gases evolved during combustion of materials for cables. Part 1 – Determination of the Halogen Acid gas Content
2.27	IS 1554 part 1	Specification for PVC insulated (Heavy duty) Electric cable

TECHNICAL SPECIFICATION OF LT POWER CABLE

3.0 CABLE DESIGN

Description of each item mentioned in the specification (the text, BOQ, GTP or any site specific requirement) shall be followed along with IS: 7098 – P1

3.1	Conductor	<p>a) Electrolytic Grade Stranded Aluminium Conductor</p> <p>b) Grade : H2 as per IS: 8130/1984</p> <p>c) Class 2</p> <p>d) Chemical Composition as per IS 4026</p> <p>e) Shape & Size:</p> <table><tr><th>S.no.</th><th>Shape</th><th>Single core</th><th>Multi core</th></tr><tr><td>1</td><td>Compacted Circular</td><td><ul style="list-style-type: none">• 1cx300• 1cx630• 1cx1000</td><td>2cx10</td></tr><tr><td>2</td><td>Sector</td><td>---</td><td><ul style="list-style-type: none">• 2cx25• 4cx25• 4cx50• 4x150</td></tr></table>	S.no.	Shape	Single core	Multi core	1	Compacted Circular	<ul style="list-style-type: none">• 1cx300• 1cx630• 1cx1000	2cx10	2	Sector	---	<ul style="list-style-type: none">• 2cx25• 4cx25• 4cx50• 4x150
S.no.	Shape	Single core	Multi core											
1	Compacted Circular	<ul style="list-style-type: none">• 1cx300• 1cx630• 1cx1000	2cx10											
2	Sector	---	<ul style="list-style-type: none">• 2cx25• 4cx25• 4cx50• 4x150											
3.2	Insulation	Extruded XLPE as per IS : 7098 part-1												
3.3	Core Identification	As per Cl.10 of IS 7098 part-1												
3.4	Inner Sheath	For 1.1 kV 2CX10 , 2CX25 Pressurized Extruded For other cable Extruded Inner Sheath of black PVC type ST-2 (IS 5831-1984)												
3.5	Armour	<p>a) For 2C X 10 mm² – Galvanized Steel round wire.</p> <p>b) For all sizes above 10 mm²-Galvanized Steel Strip</p> <p>c) Not applicable for single core cables of size 300 , 500 , 630 & 1000 mm²</p> <p>d) Minimum area of coverage of armouring shall be 90%</p> <p>e) The breaking load of armour joint shall not be less than 95% of that armour wire / strip</p> <p>f) Zero negative tolerance for thickness of armour strip shall be as per IS:3975</p> <p>g) Zinc rich paint shall be applied on strip/wire and its joint surface.</p>												
3.6	Outer Sheath	<p>a) Extruded FRLS (R5)outer sheath of PVC (ST-2) shall be as per IS:5831</p> <p>b) Colour : Yellow (For multi core cables)</p>												

TECHNICAL SPECIFICATION OF LT POWER CABLE

		<p>Black (For single core 300,500, 630 & 1000 mm²)</p> <p>c) FRLS(R5) Outer sheath of all the LT cables shall be UV resistant; as these cables are laid in air exposed to sun. Bidder to ensure the same for these requirements supported by required test.</p> <p>d) Shape of the cable over the outer sheath shall be circular, when manufactured/completed.</p> <p>e) The FRLS (R5) outer Sheath shall be embossed with following minimum text:</p> <ul style="list-style-type: none"> i) The voltage designation ii) Type of construction /cable code (For e.g. A2XWY/A2XFY) iii) Manufacture name/Trade mark iv) Number of Cores and nominal cross section area of conductor v) Name of buyer i.e BRPL (BSES Rajdhani Power Ltd.) vi) Month & year of manufacturing vii) IS reference , i.e. IS:7098 viii) P.O No. and Date ix) Font size shall be 5/5mm x) ISI mark <p>The embossing shall be progressive, automatic, in line and marking shall be legible and indelible.</p> <p>Following points shall be laser printed on every meter of cable</p> <ul style="list-style-type: none"> i. Progressive (Sequential) length of cable at every meter, starting from zero for every drum. Colour filled in for the progressive marking, shall be with proper contrast in colouring. ii. Drum number marking on every meter of the cable length
3.7	Bending Radius	Bending Radius of cable shall comply to IS:1255
3.8	Sealing of cable end	Both ends of the cable shall be sealed by means of non-hygroscopic heat shrinkable HDPE caps
3.9	FRLS Properties (R5)	<p>Oxygen Index : Not less than 29% as per ASTM 2863</p> <p>Temperature Index : 250 Deg C at Oxygen Index 21 (when tested as per ASTM D 2863)</p> <p>Max Acid Gas Generation – Not more than 20% as per IEC -60754-1</p> <p>Light Transmission - Minimum 40% when tested as per ASTM D 2843 (Smoke Density rating shall be max 60%)</p> <p>Flammability Test – As per IEC 60332-III, Cat – B, IEC 60332- I, IS- 10810 – Part 53, IS:10810 – Part 61 & 62 (Category A)</p>

4.0 CABLE DRUM

4.1	Reference Standard	Cable drum shall comply with IS: 10418.
4.2	Type of Drum	<p>Wooden drums with anti termite treatment.</p> <p>(The drums shall be provided with M.S spindle plate and nut-bolts arrangement as per IS : 10418)</p>

TECHNICAL SPECIFICATION OF LT POWER CABLE

4.3	Drum Length & Tolerance	For 1.1 KV 2C X 10 mm ² Cable - 1000+/-5% Mtr For all size above 10 mm ² Cables - 500 +/-5% Mtr
4.4	Overall Tolerance	-2 % for the total cable length for the entire order.
4.5	Short Length of Cable	a) Minimum Acceptance short length shall be 1% of the total ordered quantity and no length shall be less than 500 mtrs for 2C X 10 mm ² cable & 250 mtr for all sizes above 10 mm ² . Manufactures shall be taken prior approval from BRPL Engineering for any short length supply. Short length will be accepted in last lot. b) Manufacture shall not be allowed to put two cable pieces of different short length in same cable drum
4.6	Preventive Measure for cable Drum	a) The surface of the drum and outer most cable layer shall be covered with water proof layer b) Ferrous part of wooden drum shall be treated with suitable rust preventive paint/coating to minimize rusting during storage.
4.7	Drum Identification Labels	a) Drum identification number b) Cable voltage grade c) Cable code (eg. A2XFY/A2XWY) d) Number of cores and cross sectional area e) Cable quantity i.e cable length (Meters) f) Purchase order number, date & SAP item code g) Total weight of cable and drum (kg) h) Manufacture's and Buyer's name i) Month & year of manufacturing j) Direction of rotation of drum; an arrow and suitable accompanying wording shall be marked on one end of the reel indicating the direction in which it should be rolled. k) Cable length final end-marking (i.e reading at the inner end and reading at the outer end, just before packing shall be marked on the drum.

5.0 PACKING , SHIPPING , HANDLING & STORAGE

5.1	Shipping information Plan	The seller shall be give complete shipping information concerning the weight ,size of each package
5.2	Transit Damage	The seller shall be held responsible for all transit damage due to improper packing/inside cable damaged found in store/site
5.3	Cable Drum Handling	The drum shall be with M.S spindle plate(with nut –bolts) of adequate size to suit the spindle rod , normally required for handling the drums , according to expected weight of the cable drums as per IS:10418

TECHNICAL SPECIFICATION OF LT POWER CABLE**6.0 QUALITY ASSURANCE ,TESTING & INSPECTION**

All the tests shall be carried out in accordance with IEC / IS standards.

6.1	Quality Assurance Plan	As per Annexure – E. In event of order Manufacturer has to Submit the signed copy of QAP.
6.2	Inspection hold points	AS per QAP
6.3	Routine Test	a) Measurement of Electrical Resistance b) HV test with power frequency AC voltage
6.4	Type Test	(a) Cables must be of type tested quality. Type test reports shall be submitted for the type, size and rating of cable offered along with bid. Type test shall not be more than 5 years old. In the event of type test being older than 5 years, bidder has to conduct the same at CPRI/ERDA, approved Lab without commercial implication to BRPL (b) Bidder supplying cable to BRPL for the first time shall have to conduct type test, Chemical Composition & UV resistance test on sample randomly selected from lot in event of order from CPRI/ERDA. (c) UV resistance test to be carried out on one sample from CPRI/ERDA/NABL Accredited Lab as per ASTM standard (sample shall meet minimum 80% retention after exposure of 21 days as per ASTM standard).
6.5	Acceptance Test (Shall be conducted as per Cl.15.2 of IS 7098 Part-1 & IS 1554 part 1 for each lot of cable)(R5)	a) For cable sizes up to 50 mm ² – one sample for chemical composition and purity test of aluminium shall be conducted upto r 100km of ordered quantity and multiple thereof. b) For cable sizes above 50 mm ² – one sample for chemical composition and purity test of aluminium shall be conducted upto 50km of ordered quantity and multiple thereof. c) Chemical composition and purity test of aluminium shall be conducted from the lot offered to BRPL on each size involved in the purchase order. Test shall carried out at NABL accredited third party lab without any price implication to BRPL. d) The sample will be selected either during acceptance test or after receipt of cable in BRPL Stores.
6.6	Inspection	a) The buyer reserves the right to witness all tests specified on

TECHNICAL SPECIFICATION OF LT POWER CABLE

		completed cables b) The buyer reserves the right to inspect cables at the seller's works at any time prior to dispatch either in finished form or during manufacturing, to prove compliance with the specifications. c) In-process and final inspection call intimation shall be given in 10 days advance to purchaser/CES.
6.7	Test Certificates	Complete test certificates (routine & acceptance tests) need to be submitted along with the delivery of cables.

7.0 DRAWING, DATA & MANUALS

7.1	To be submitted along with bid	The vendor has to submit: a) Cross section drawing of cable b) Completely filled GTP c) Type test certificates d) Complete cable catalogue and manual along with the bid e) Copy of BIS licence
7.2	After award of contract	Within 7 days, the seller has to submit four sets of above mentioned drawings for buyer's approval along with the signed copy of QAP (Annexure – E).
7.3	Final As Built	6 sets hardcopy + One Soft copy of all documents including type test certificates

8.0 PROGRESS REPORTING

8.1	Outline Document	To be submitted for purchaser approval for outline of Production-inspection, testing-inspection, packing, dispatch, documentation programme.
8.2	Detailed Progress Report	To be submitted to purchaser once a month containing (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

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		(vi) Details of test failures if any in manufacturing stages. (vii) Progress on final box up constraints/forward path.

9.0 DEVIATION

- a) Deviations from this specification shall be listed separately by bidder clause wise (format given below) along with optional offer and has to submit the list along with bid/quotation. BRPL will review the deviations and if BRPL is agreed with the deviation, seller has to take written confirmation from BRPL on deviation during tender evaluation.
- b) In the absence of any separate list of deviations from the bidders with bid as well as written confirmation from BRPL on deviations, it will be assumed by the Buyer that the Seller complies with the Specification fully.
- c) Any deviations mentioned in any other submitted bid documents (i.e.in filled GTP, Catalog, BRPL old approval, buyer's/seller's standards etc) by seller without separate deviation sheets will not consider as a deviation from this tech spec at any stage of contract.

Deviation sheet format.

Sl. No.	Document Name	Clause No.	Deviation	Reason	Merit to BRPL

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10.0 TECHNICAL PARTICULARS

<div><div><div>a. GTP - As per Annexure-B for Multi-core cables.</div><div>b. GTP - As per Annexure-C for Single-core cables (300, 500, 630 & 1000 mm² cables).</div><div>c. Armour Coverage Percentage – As per Annexure-D.</div><div>d. Quality Assurance Plan – As per Annexure-E.</div><div>e. List of sub-vendors for Raw Material – As per Annexure-F.</div></div></div>

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11.0 ANNEXURE – A

SCOPE & PROJECT SPECIFICATION DETAILS


1.0.0 Scope

1.0.0	Scope	Design, manufacture, testing & supply of L.T Power Cables.
2.0.0	Delivery Schedule	To be filled up as per purchase requisition.

2.0.0 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	2 Copies + 1 soft copy in CD	See Clause 7.0 for details of required drawings
Calculations	2 Copies (Typical)	2 Copies		
Catalogues	1 Copy			
Type Test Report	2 Copies			Type test and sample routine test reports

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12.0 ANNEXURE – B

GUARANTEED TECHNICAL PARTICULARS (Multi-core)

(Standard Cable sizes are 2c x10, 2c x25, 4c x25, 4c x50, 4C X 95, 4c x150, 4cx300)

For each size /rating separate GTP need to be furnished

Sr. No.	Description	Buyer's Requirement	Seller's data
	Manufacture Contact Person & Number		
	Purchase Req. No.	.....
	Guarantee Period: (Min)	60 Months (from date of commissioning) / 66 months (from date of receipt at purchaser's store) whichever is earlier	
	Applicable IS / IEC Standard followed by vendor	As mentioned in the clause no – 2.0	
1	Make	...	
2	Type (as required by purchaser)		
A	For 2CX10Sqmm	A2XWY	
B	For Sizes above 10 mm ²	A2XFY	
3	Voltage Grade (kV)	1.1	
4	Maximum Conductor temperature		
A	Continuous	90°C	
B	Short time	250°C	
5	Conductor		
A	Material and Grade	As per Cl.3.1	
B	Make of Al	Ref Annexure E	
C	Size (mm ²)	..... mm ²	
D	Min no. of wires in each conductor (Nos.)	As per Manufacturer Standard	
E	Min Dia. of wires in each conductor before compaction (mm)	As per Manufacturer Standard	

TECHNICAL SPECIFICATION OF LT POWER CABLE

F	Shape of Conductor	As per Cl.3.1 (e)	
G	Diameter over conductor (mm)	.....
H	Maximum Conductor resistance at 20 ° C (Ohm/Km)	As per Table 2 of IS 8130	
6	Insulation		
A	Insulation Material	As per Cl. 3.2	
B	Nominal thickness (mm)	As per Table 3 of IS 7098 Part-1	
C	Diameter over Insulation (mm) Approx.	.....
D	Make of insulation compound	Ref: Annexure E	
7	Inner Sheath		
A	Material and Type	As per Cl. 3.4	
B	Minimum thickness	As per Table 5 of IS 7098 Part-1	
C	Approx. dia. Over sheath (mm)	.....
8	Galvanized Steel Armour	as per purchaser's site - specific condition	
A	Material		
a)	For 2CX10 mm ²	G.I.Wire	
(i)	Wire Dia (mm)	1.4+/-0.040	
(ii)	No. of wires	As per Manufacturer Standard	
b)	For sizes above 10 mm ²	G.I.Strip	
(i)	Strip size (Width and Thickness)	4x0.8 (Zero negative tolerance for thickness)	
(ii)	No. of Strips	As per Manufacturer Standard	
B	Area covered by Armour	Min 90% and calculations shall be strictly as per Annexure D	
C	Dia. over Armour – Approx.(mm)	
9	Outer Sheath (FRLS)		
A	Material and Type	As per Cl. 3.6	

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B	Minimum Thickness	As per Table 8 of IS 7098 Part-1	
C	Colour	Yellow	
D	Embossing Details	As per Cl.3.6 (f)	
10	Approx. overall dia. (mm)	.....
11	Overall order tolerance	- 2 % for the total cable length for the entire order	
12	Cable Drum		
A	Type of Drum	Wooden	
B	Drum Length & tolerance	As per Spec. Cl. 4.3 & 4.4	
C	Marking on Drum	As per Spec. Cl. 4.7	
D	Drums provide with MS Spindle plate & nut bolts arrangement (as per IS:10418)	Required	
13	End Cap	Required	
14	Weights	.....
a)	Net Weight of cable (Kg/Km.) – Approx		
b)	Weight of empty drum	Kg	
c)	Weight of cable with drum	Kg	
15	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	
16	Short circuit current for 1 sec of Conductor (kAmp)	.....
17	Electrical Parameters at Maximum operating temperature:		
A	AC Resistance	Ohm/Km	
B	Reactance at 50 C/s	Ohm/Km	
C	Impedance	Ohm/Km	
D	Capacitance	Micro farad / Km	
18	Recommended minimum bending radius x O/D	

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19	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		
20	Group factor for following Nos. of cables laid	Touching / Trefoil	
a)	3 Nos.		
b)	4 Nos.		
c)	5 Nos.		
d)	6 Nos.		
21	Process of Cross linking of Polyethylene	Dry/ Sioplas Cure	
22	Type test	Is copy of latest valid TTR for respective Sizes enclosed? Yes / No	
23	FRLS Properties (R5)	As per IS 1554, Part-1	
	Oxygen Index	As per IS 1554, Part	
	Temperature Index	As per IS 1554, Part	
	Max Acid Gas Generation	As per IS 1554, Part	
	Light Transmission / Smoke Density	As per IS 1554, Part	

TECHNICAL SPECIFICATION OF LT POWER CABLE

13.0 ANNEXTURE- C

GUARANTEED TECHNICAL PARTICULARS (Single Core)

(Separate GTP needs to be furnished for 300, 500, 630 & 1000 mm² cables)

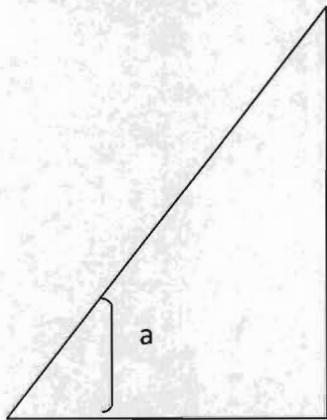
S.No.	Description	Buyer's Requirement	Seller's data
	Manufacture Contact Person & Number		
	Purchase Req. No.	.....
	Guarantee Period: (Min)	60 Months (from date of commissioning) / 66 months (from date of receipt at purchaser's store) whichever is earlier	
	Applicable IS / IEC Standard followed by Vendor	As mentioned in the clause no-2.0	
1	Make	.....
2	Type	A2XY (Un-armoured)	
3	Voltage Grade (kV)	1.1kV	
4	Maximum Conductor temperature		
A	Continuous	90°C	
B	Short time	250°C	
5	Conductor		
A	Material and Grade	As per Cl.2.1.1	
B	Size (mm ²)	300 / 500 / 630 / 1000 mm ²	
C	Min no. of wires in each conductor (Nos.)	As per Manufacturer Standard	
D	Min Dia. of wires in each conductor before compaction (mm)	As per Manufacturer Standard	
E	Shape of conductor	Compacted Circular	
F	Diameter over conductor (mm)	.....
G	Maximum Conductor resistance at 20 ° C (Ohm/Km)	As per Table 2 of IS 8130	
H	Make of Al	Ref Annexure E	
6	Insulation	As per Table 3 of IS 7098	

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		Part-1	
A	Insulation Material	As per Cl. 3.2	
B	Nominal thickness (mm)		
(i)	For 1Cx300 mm ²	1.8 mm	
(ii)	For 1Cx500 mm ²	2.2 mm	
(iii)	For 1Cx630 mm ²	2.4 mm	
iv)	For 1Cx1000 mm ²	2.8 mm	
C	Diameter over Insulation (mm) Approx.	.....
D	Make of insulation compound	Ref: Annexure E	
7	Inner Sheath	Not applicable	
8	Armour	Not applicable	
9	FRLS Outer Sheath (R5)		
A	Material and Type	As per Cl. 3.6	
B	Minimum Thickness	As per Table 8 of IS 7098 Part-1	
C	Colour	Black	
D	Embossing Details	As per Cl.3.6 (f)	
10	Approx. overall dia. (mm)	.....
11	Overall order tolerance	-2 % for the total cable length for the entire order	
12	Cable Drum		
A	Type of Drum	Wooden	
B	Drum Length & tolerance	As per Spec. Cl. 4.3 & 4.4	
C	Marking on Drum	As per Spec. Cl. 4.7	
D	Drums provide with MS Spindle plate & nut bolts arrangement (as per IS:10418)	Required	
13	End Cap	Required	
14	Weights	.....
a)	Net Weight of cable (Kg/Km.) – Approx		
b)	Weight of empty drum	Kg	
c)	Weight of cable with drum	Kg	
15	Continuous current rating for standard I.S condition laid direct		

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a)	In ground 30° C	Amps	
b)	In duct 30° C	Amps	
c)	In Air 40° C	Amps	
16	Short circuit current for 1 sec of Conductor (kAmp)	
17	Electrical Parameters at Maximum operating temperature:		
A	AC Resistance	Ohm/Km	
B	Reactance at 50 C/s	Ohm/Km	
C	Impedance	Ohm/Km	
D	Capacitance	Micro farad / Km	
18	Recommended minimum bending radius	..... x O/D	
19	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		
20	Group factor for following Nos. of cables laid	Touching / Trefoil	
a)	3 Nos.		
b)	4 Nos.		
c)	5 Nos.		
d)	6 Nos.		
21	Process of Cross linking of Polyethylene	Dry/ Sioplas Cure	
22	Type test	Is copy of latest valid TTR for respective Sizes enclosed? Yes / No	
23	FRLS Properties (R5)		
	Oxygen Index	As per IS 1554, Part	
	Temperature Index	As per IS 1554, Part	
	Max Acid Gas Generation	As per IS 1554, Part	

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	Light Transmission / Smoke Density	As per IS 1554, Part	

14.0 ANNEXTURE – D
ARMOUR COVERAGE PERCENTAGE



Percent coverage = $\frac{N \times d}{W} \times 100$

Where

- N = number of parallel wires / Strips
- d = diameter of wire / width of formed wires
- $W = \pi \times D \times \cos a$,
- D = diameter under armour
- a = angle between armouring wire / formed wires and axis of cable
- $\tan a = \pi \times D / C$, and
- C = lay length of armouring wires / formed wires.

Min 90% armour coverage shall be provided both in case of wires and strips.

The gap between armour wires / formed wires shall not exceed one armour wire / Formed wire space and there shall be no cross over / over-riding of armour wire / Formed wire. So, the minimum area of coverage of armouring shall be 90%.

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15.0 ANNEXTURE – E

LIST OF SUB-VENDORS

For critical items

Sr. No.	Description of Material	Sub-Vendors
1	E.C Grade Aluminium Rod	Bharat Aluminium Co. Ltd. (BALCO) Hindustan Aluminium Co. Ltd. (HINDALCO) National Aluminium Co. Ltd. (NALCO)
2	XLPE Compound	Kkalpana Industries Ltd. KLJ Polymers and Chemicals Ltd. Dow Chemical, U.S.A Borealis, Sweden Hanwha, Seoul, South Korea
3	PVC Compound (R5)	Kkalpana Industries Ltd. KLJ Polymers and Chemicals Ltd. Universal SCJ Plastic Sriram Polytech Shri Ram Vinyl, Kota
4	GI Strip (R5)	Tata Balaji Systematic Mica Wires Pvt Ltd. Bansal Industries

SPECIFICATION FOR LT AERIAL BUNCHED CABLE

**SPECIFICATION
FOR
LT AERIAL BUNCHED CABLES**

**PROJECT – LT SYSTEM UPGRADATION & MODERNISATION
FOR DELHI DISCOMM**

CES, BSES, Building No.-20, Nehru Place, New Delhi

Revision Description	Generally Revised	
Prepared by	Tarun Dey	Rev: 02
Reviewed by	Devender Sharma	Date : 18.09.2009
Approved by	Sajjad Rizvi	Page: 1 of 17
Registered office: BSES Bhawan, Nehru Place, Delhi - 110019		

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SPECIFICATION FOR LT AERIAL BUNCHED CABLE**1. SCOPE**

This specification covers design, engineering, manufacture, assembly, stage testing, inspection & testing before supply and delivery at site at of cross linked polyethylene (XLPE) insulated cables with aluminum conductors and a messenger wire of aluminum alloy to be used for overhead LT distribution system. The size are-

- i) 3CX150 (Ph) + 1CX150 (N) + 1CX125 (M) + 1CX16 (SL)
- ii) 3CX95 (Ph) + 1CX95 (N) + 1CX70 (M) + 1CX16 (SL)
- iii) 3CX50 (Ph) + 1CX50 (N) + 1CX35 (M) + 1CX16 (SL)

These cables are to be used for three (3) phase 4 wire systems with neutral solidly earthed rated voltage upto and including 1100V.

This specification defines the requirements (electrical, mechanical properties etc.) and tests to be performed on the LT Aerial Bunched cables.

2. REFERENCES

This specification shall be governed by following standards with all amendments unless otherwise specified in this specification.

- IS:8130 - Conductors for Insulated cables
- IS:398 (Part IV) - Messenger conductor
- IS:10810 - Methods of test for cables
- IS:14255 - Aerial Bunched cables for 1100V
- IS:10418 - Drums for Electric Cables
- IEC 60502, Part 1, 2004 - Power Cables with extruded Insulation, cables for rated voltages of 1kV and 3kV
- NFC 33-209 - Bundle Assembled Insulated Cables.
- HD 626 (CENELEC standard) – Overhead distribution cables of rated voltage $U_0 / U(U_m)$: 0.6/1(1.2) KV

NOTE :

This specification has mostly considered references from Indian Standards. However, certain references have also been derived from the

SPECIFICATION FOR LT AERIAL BUNCHED CABLE

above referred International standards wherever deemed suitable in meeting the onerous site requirements of Delhi Discom.

3. DEFINITIONS

- 3.1** A LT Aerial Bunched cable shall typically, at maximum, comprise of: Insulated phase conductors (3 numbers), Insulated neutral conductor (1 number), Insulated street lighting conductor (1 conductor) and a bare messenger wire (1 number).

Example :

i) Designation

3 x 150 (P) + 1 x 150 (N) + 1 x 125 (M) + 1 x 16 (SL)

P=Phase Conductor

N=Neutral Conductor

M= Messenger

SL=Street Light Conductor

ii) Size

3 x 150 sq. mm = 3-phase conductors.

1 x 150 sq. mm = 1 neutral conductor

1 x 125 sq. mm. = 1 messenger wire

1 x 16 sq. mm. = 1 lighting conductor

- 3.2 Messenger Wire:** As defined in NFC 33-209 "Wire or cable which has principal function of supporting the cable in overhead systems and which may be separate or may be an integral part of the cable which it supports". Messenger wire should be bare conductor.

SPECIFICATION FOR LT AERIAL BUNCHED CABLE**4. SITE CONDITIONS**

Sl.No.	Description	Data
1	Relative Humidity	
	a) Maximum	100%
	b) Minimum	10%
2	Average annual rainfall	750 mm
3	Average no. Of rainy days	50 per annum
4	Temperature max/min /year Average	50/0/40degree C
5	Average no. Of Thunder storm Days	40 per annum
6	Altitude (Above mean sea level)	not exceeding 300 mtrs
7	Rain months	June to October
8	Wind pressure	as per IS 975

5. SPECIFICATIONS**5.1 Conductor**

The Aluminum conductor shall be of circular cross section, stranded and compacted. They shall be of H2 or H4 grade (complying with IS: 8130:1984) and per the following:

- a) Upto and including 50 sq. mm. conductors = H2 grade.
- b) All sizes above 50 sq. mm. conductors = H4 grade.

5.2 Messenger Wire

The messenger wire shall be stranded, circular, aluminum – magnesium – silicon alloy type. They shall have minimum 7 strands.

They shall comply with IS 398 (part 4). Specific attention is made to Tables – 1, 2 & 3 of IS 398.

SPECIFICATION FOR LT AERIAL BUNCHED CABLE**5.3 Conductor Insulation**

- 5.3.1 The cross-linked polyethylene (XLPE) insulating shall be black in colour and to be stabilized against deterioration caused by exposure to direct sunlight and ultraviolet radiation conforming to requirement specified in Table – 1 of IS : 14255 – 1995 or IEC 60502. XLPE insulation shall be pressure extruded
- 5.3.2 The nominal value of the carbon black content of the sheath (insulation) shall be 2.5 with a tolerance of $\pm 0.5\%$ (Table 20 of IEC : 60502-1, 2004)
- 5.3.3 The XLPE material shall be preferably of BOREALIS, DOW or any other make subject to the prior written approval of the buyer.
- 5.3.4 The average thickness of insulation shall comply to Table – 4 of IS : 14255 – 1995. For nominal area of conductors above 95 sq. mm., the average thickness of insulation shall not be less than the nominal value mentioned hereunder :

Nominal Area of Conductor (sq. mm.)

Nominal Thickness (mm.)

150

1.8

- 5.3.5 All other requirements related to insulation shall comply to clause 7 of IS : 14255 – 1995.

5.4 Core Identification

The core identification shall be as per clause no. 8.1 of IS : 14255 – 1995. Ridges shall be provided over phase core and neutral core also.

5.5 Laying of Cores

The assembly (laying up) of cores shall be as per clause 9 of IS : 14255 – 1995.

SPECIFICATION FOR LT AERIAL BUNCHED CABLE**5.6. Embossing on cores.**

All the cable shall have the following embossing on insulated neutral conductor for identification in interval not more than 2 mtrs. Font size of letters to be min. 5 mm.

- i. Name or trade mark of manufacturer
- ii. Voltage grade
- iii. Type of cable, i.e LT ABC
- iv. Size of phase conductor, i.e. 150 sqmm.
- v. Size of messenger conductor, i.e 125 sqmm
- vi. Year and month of manufacturing.
- vii. Type of insulation, i.e XLPE
- viii. Name of purchaser
- ix. P.O. Number

6. TESTS

6.1	Routine test	a. Conductor resistance test.
		b. Messenger resistance test.
		c. High voltage test in water (Duration of immersion > 10 minutes)
6.2	Acceptance test	Sampling to be done as per IS: 14255:1995, Annexure-A.
		a. Tensile test for phase and street light conductor
		b. Wrapping test for phase and street light conductor
		c. Conductor resistance test.
		d. Direction and ratio of lay in the outer layer of conductor
		e. Breaking load test for messenger conductor and street light conductor.
		f. Messenger resistance test.
		g. Elongation test for messenger conductor
		h. Direction and ratio of lay for messenger conductor.
		i. Thickness of insulation.
		j. Tensile strength and elongation at break of insulation
		k. Hot set test for insulation.

SPECIFICATION FOR LT AERIAL BUNCHED CABLE

		l. Carbon black content
		m. Insulation resistance test at room temperature and 90 deg.C .
		n. High voltage test of core in water (Duration of immersion > 1 hour.)
		o. Lay length of complete cable
		p. Chemical composition test for aluminum conductor.
		q. Dimensional test as per parameters specified in the technical particulars.
		q. Bend test for complete cable
6.3	Type Test	Type test to be carried out on one randomly selected sample from CPRI / ERDA. Type test is valid for five years.
		a. All the type test as per IS: 14255:1995
		b. UV radiation test as per ASTM standard. (sample shall meet min. 80% retention after exposure of 21 day as per ASTM standard)

Note: UV radiation test is applicable in case bidder has not conducted the same test against BSES supply.

7. IDENTIFICATION, PACKING AND MARKING

7.1 The AB Cable shall be wound on non-returnable wooden drums conforming to IS: 10418 with latest amendments thereof. The drums should have supporting plate with bush at central hole. The end of the cable shall be sealed by means of non-hygroscopic sealing material. The marking of drum shall be in line with IS: 14255:1995.

7.2 The drums shall be of such construction as to assure delivery of cable in the field free from displacement and damage and should be able to withstand all stresses due to handling and the stringing operation so that cable surface is not dented, scratched or damaged in any way during transportation and erection. The cable shall be properly lagged on the drums.

SPECIFICATION FOR LT AERIAL BUNCHED CABLE

7.3 Details of drums length tolerance and short length shall be as follows.

- Tolerance in drum length shall be $\pm 5\%$
- Total Order quantity tolerance shall be $\pm 2\%$
- Non standard length shall not be less than 250mtrs in one continuous length.
- One drums non standard length to be acceptable.

ANNEXURE – 1 / DATA SHEET FOR LT AB CABLE

Sl. No.	Technical Parameter	Unit	BSES Specification	Vendor Data
1	YEARS OF MANUFACTURING SIMILAR CABLE	Nos.	3 or more years of supply of similar sizes and design / higher sizes of cables. (Furnish client list)	
2	TYPE TEST CERTIFICATES		Furnish for all type tests as mentioned in IS 14255 - 1995. The tests should have been performed NOT earlier than 5 years. Type test certificate shall be from CPRI/REDA/KEMA shall be submitted.	
3	GUARANTEED PERIOD.(DATE OF SUPPLY / DATE OF COMMISSIONING WHICH EVER IS EARLIER.		66 / 60 MONTHS	
	APPLICABLE STANDARDS		IS 14255:1995, IS 398 (part 4): 1979, IS 8130: 1984, IS 10810:1990, IS 10418:1982, IEC-60502, NFC-33-209 HD 626 (Cenelec standard.)	
4	VOLTAGE GRADE		1.1KV Grade	
5	NO. OF CORES/TYPE			
	i) PHASE CONDUCTOR		3 (Al)	
	ii) NEUTRAL CONDUCTOR		1 (Al)	
	iii) MESSENGER		1 (Al Alloy)	
	iv) STREET LIGHTING CONDUCTOR		1 (Al)	

ANNEXURE – 1 / DATA SHEET FOR LT AB CABLE

Sl. No.	Technical Parameter	Unit	BSES Specification			Vendor Data		
6	CROSS-SECTIONAL AREA : sq. mm.		150 mm ²	95 mm ²	50 mm ²	150 mm ²	95 mm ²	50 mm ²
	i) PHASE CONDUCTOR	(nom.)	150	95	50			
	ii) NEUTRAL CONDUCTOR	(nom.)	150	95	50			
	iii) MESSENGER	(nom.)	125	70	35			
	iv) STREET LIGHTING CONDUCTOR	(nom.)	16	16	16			
7	TYPE OF CONDUCTOR MATERIAL							
	i) PHASE CONDUCTOR		As per clause 5.1 of specification					
	ii) NEUTRAL CONDUCTOR		As per clause 5.1 of specification					
	iii) MESSENGER		Al Alloy conductor as per IS 398 (part 4) & IS 14255 : 1995					
	iv) STREET LIGHTING CONDUCTOR		E.C grade AL H2 /H4 as per IS 8130 : 1984					
8	NUMBER OF STRANDS IN							
	i) PHASE CONDUCTOR		Circular Stranded Compacted Per Table 2 of IS 8130					
	ii) NEUTRAL CONDUCTOR		Circular Stranded Compacted Per Table 2 of IS 8130					
	iii) MESSENGER		Circular Stranded Per Table 2 of IS 8130					
	iv) STREET LIGHTING CONDUCTOR		Circular Stranded Compacted Per Table 2 of IS 8130					
9	MINIMUM / NOMINAL DIAMETER OF STRANDS							
	i) Phase Conductor		As per manufacturer standard					
	ii) Neutral conductor		As per manufacturer standard					
	iii) Street light conductor		As per manufacturer standard					
	v) MESSENGER		As per IS: 398, Part-4					

ANNEXURE – 1 / DATA SHEET FOR LT AB CABLE

Sl. No.	Technical Parameter	Unit	BSES Specification			Vendor Data		
10	LINEAR RESISTANCE OF CONDUCTOR AT 20°C (max) (with the combination of phase conductor and others per sl. No. 6 above)					150 mm ²	95 mm ²	50 mm ²
	i) PHASE CONDUCTOR	ohm / km	As per Table 2 of IS 8130- 1984					
	ii) NEUTRAL CONDUCTOR	ohm / km	As per Table 2 of IS 8130- 1984					
	iii) MESSENGER	ohm / km	As per Table 2 of IS 398 (Part-4)- 1994					
	iv) STREET LIGHTING CONDUCTOR	ohm / km	As per Table 2 of IS 8130- 1984					
11	CONTINUOUS CURRENT CARRYING CAPACITY IN AIR(at 40°C ambient) (with the combination of phase conductor and others per sl. No. 6 above)					150 mm ²	95 mm ²	50 mm ²
		Amps						
12	CONTINUOUS CURRENT CARRYING CAPACITY IN AIR(at 50°C ambient) (with the combination of phase conductor and others per sl. No. 6 above)					150 mm ²	95 mm ²	50 mm ²
		Amps						
13	SHORT CIRCUIT CURRENT RATING FOR 1 Sec. (with the combination of phase conductor and others per sl. No. 6 above)					150 mm ²	95 mm ²	50 mm ²
		KA						
14	BREAKING STRENGTH (min.)		125 mm ² Messenger	70 mm ² Messenger	35 mm ² Messenger	125 mm ² Messenger	70 mm ² Messenger	35 mm ² Messenger
	i) MESSENGER	kN	36.64	19.7	10.11			
	ii) STREET LIGHTING CONDUCTOR : 16 sq. mm	kN	1.9					

ANNEXURE – 1 / DATA SHEET FOR LT AB CABLE

Sl. No.	Technical Parameter	Unit	BSES Specification	Vendor Data		
15	DIAMETER OF BARE (mm)			150 mm²	95 mm²	50 mm²
	i) PHASE CONDUCTOR	(min.)				
		(max.)				
	ii) NEUTRAL CONDUCTOR	(min.)				
		(max.)				
	iii) MESSENGER	(nom.)				
	iv) STREET LIGHTING CONDUCTOR	(nom.)				
16	Lay ratio and direction of lay of conductor			150 mm²	95 mm²	50 mm²
	i) Phase conductor					
	ii) Neutral conductor					
	iii) Messenger conductor					
	iv) Street light conductor					
17	Type of insulation		XLPE			
	i) Make of insulation					
	ii) Grade of insulation					
18	COLOUR OF INSULATION		Black			
19	CARBON BLACK CONTENT (%)		2.5% (MAX.)			
20	EXTRUSION PROCESS		PRESSURE EXTRUDER			
21	ISULATED CABLE OUSIDE DIAMETER (mm)			150 mm²	95 mm²	50 mm²
	i) PHASE CONDUCTOR	(min.)				
		(max.)				
	ii) NEUTRAL CONDUCTOR	(min.)				
		(max.)				
	iii) STREET LIGHTING CONDUCTOR	(nom.)				

ANNEXURE – 1 / DATA SHEET FOR LT AB CABLE

Sl. No.	Technical Parameter	Unit	BSES Specification			Vendor Data		
22	CORE IDENTIFICATION							
	i) PHASE CONDUCTOR		Ridges per clause 8.1 of IS : 14255-1995					
	ii) NEUTRAL CONDUCTOR		Ridges per clause 8.1 of IS : 14255-1995					
	iii) STREET LIGHTING CONDUCTOR		None					
23	ASSEMBLY LAY LENGTH					150 mm ²	95 mm ²	50 mm ²
		mm						
24	ASSEMBLY LAY DIRECTION		Right Hand					
25	CABLE IDENTIFICATION ON NEUTRAL CORE		As per specification clause no. 5.6					
	Font size of letters	mm						
26	WEIGHT OF THE CABLE (with the combination of phase conductor and others per sl. No. 6 above)					150 mm ²	95 mm ²	50 mm ²
		Kg/km						
27	STANDARD LENGTH PER DRUM (with the combination of phase conductor and others per sl. No. 6 above)		150 mm ²	95 mm ²	50 mm ²	150 mm ²	95 mm ²	50 mm ²
		Mtr.	300	400	500			

ANNEXURE – 1 / DATA SHEET FOR LT AB CABLE

Sl. No.	Technical Parameter	Unit	BSES Specification	Vendor Data		
28	TYPE / SIZE OF THE DRUM (with the combination of phase conductor and others per sl. No. 6 above) (Include dimensions details)		Wooden Drum	150 mm ²	95 mm ²	50 mm ²
	(Flange x Barrel x Traverse)					
29	GROSS WEIGHT OF THE DRUM (with the combination of phase conductor and others per sl. No. 6 above)			150 mm ²	95 mm ²	50 mm ²
		kg				
30	MARKING ON THE DRUM		AS PER clause 13 of IS : 14255-1995			
31	BENDING RADIUS OF COMPLETE CABLE (with the combination of phase conductor and others per sl. No. 6 above)			150 mm ²	95 mm ²	50 mm ²
		mm.				
32	Weight of bare core			150 mm ²	95 mm ²	50 mm ²
	i) Phase or neutral conductor	Kg/km				
	ii) Messenger conductor	Kg/km				
	iii) Street light conductor	Kg/km				
33	Weight of insulated core			150 mm ²	95 mm ²	50 mm ²
	i) Phase or neutral core	Kg/km				
	ii) Street light core	Kg/km				



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ANNEXURE – 1 / DATA SHEET FOR LT AB CABLE

Sl. No.	Technical Parameter	Unit	BSES Specification	Vendor Data		
34	CHEMICAL COMPOSITION					
	i) ALUMINIUM CONDUCTOR		AS PER IS 5484:1997			
	ii) ALUMINIUM ALLOY CONDUCTOR		AS PER IS 9997:1991			

Bidder / Vender Signature and seal

a. Name of bidder	
b. Address of bidder	
c. Name of contact persons	
d. Telephone number and email id of contact persons.	

Note: Bidder shall furnish the GTP format with all details against each clause. Bidder shall not change the format of GTP or clause description. Bidder to submit duly filled GTP in hard copy with company seal.

ANNEXURE-2 / DOCUMENTS SUBMITTAL REQUIREMENT

Drawings, Data and Manuals shall be submitted with the bid and after the bid in quantities and procedures as specified in this document for approval and subsequent distribution after the issue of LOI / PO / Award of Contract.

S.No	Description Of Drawing / Data / Manuals	With bid (2 sets of hard copies)	Post bid	
			For review & approval (2 sets of hard copies)	Prior to Despatch As built (2 sets of hard copies and 1 CD-Rom)
1	Quality Assurance Plan along with inspection and test program.	Y		
2	Completed technical data schedule XLPE Cable current ratings for different types of installation inclusive of de-rating factors for ambient temperature, grouping etc.	Y		
3	Manufacturer's catalogues giving XLPE cable construction and various other details.	Y		
4	Cable cross-sectional drawing for each type of XLPE cable.	Y		
5	Type test certificates, where applicable, and sample routine test reports	Y		
6	GTP duly filled as per Annexure-II.	Y		
7	Data sheet of XLPE compound	Y		
8	Detailed reference list of customers already using equipment offered during the last 5 years with particular emphasis on units of similar design and rating	Y		
9	Details of manufacturer's quality assurance standards and programme and ISO 9000 series or equivalent national certification	Y		
10	Deviations from this specification. Only deviations approved in writing before award of contract shall be accepted	Y		
11	Technical data schedule, with approved revisions.	Y		
12	Calculations to substantiate choice of electrical, structural, mechanical component size/ratings	Y		
13	Detailed installation and commissioning instructions	Y		

ANNEXURE -I

PRICEFORMAT

PACKAGE-A

ITEM DESCRIPTION	QTY	UoM	EX- WORKS RATE PER KM	UNIT FREIGH T	GST	UNIT LANDE D	TOTAL LANDE D COST
RATE CONTRACT FOR SUPPLY OF 1.1KV LT FRLS XLPE POWER CABLE OF SIZE 4CX300 SQ.MM	150	KM					

PACKAGE-B

ITEM DESCRIPTION	QTY	UoM	EX- WORKS RATE PER KM	UNIT FREIGH T	GST	UNIT LANDE D	TOTAL LANDE D COST
RATE CONTRACT FOR SUPPLY OF LT AERIALY BUNCHED CABLES OF SIZES 3CX150 SQ.MM	400	KM					

ANNEXURE -II**BID FORM**

To

Head of
Department
Contracts &
Material Deptt.
BSES Rajdhani
Power Ltd 1st Floor,
CBlock
BSES Bhawan,
NehruPlace New
Delhi 110019

Sir,

1. We understand that BRPL is desirous of procuring of in its 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 as may be determined in accordance with the terms and conditions of the contract.
3. If our Bid is accepted, we undertake 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 120 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 thereof, 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..... 2021

Signature..... In the capacity of
.....duly authorized to sign for
and on behalf of

(IN BLOCK CAPITALS).....

ANNEXURE -III**ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION
EVENT**

(To signed & stamped by the bidder along with bid)

BSES Rajdhani Power Ltd (BRPL) intends to use reverse auction through SAP-SRM tool as an integral part of entire tendering process. All bidders who are techno-commercially qualified on the basis of tender requirements shall participate in the reverse auction.

The following terms and conditions are deemed as accepted by the bidder on participation in the bid:-

1. In case of bidding through Internet medium, bidders are advised to ensure availability of all associated infrastructure as required to participate in the reverse auction event. Inability to bid due to telephone glitch, internet response issues, software & hardware hangs/failures, power failures or any other reason shall not be the responsibility of BRPL.
2. In case bidder fails to participate in the reverse auction event due to any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid submitted by them as a part of tender shall be considered as bidder's Final No Regret offer. Any off-line price bids received from a bidder in lieu of non-participation in the reverse auction event shall be rejected by BRPL.
3. The bidder is advised to understand the auto bid process & safeguard themselves against any possibility of non-participation in the reverse auction event.
4. The bidder shall be prepared with competitive price quotes during the day of reverse auction event.
5. The prices quoted by bidder in reverse auction event shall be on FOR Landed cost BRPL Store/site basis inclusive of all relevant taxes, duties, levies, transportation charges etc.
6. The prices submitted by the bidder during reverse auction event shall be binding on the bidder.
7. The bidder agrees to non-disclosure of trade information regarding bid details e.g. purchase, identity, bid process/technology, bid documentation etc.
8. BRPL will make every effort to make the bid process transparent. However award decision of BRPL will be final and binding on the bidder.
9. The prices submitted during reverse auction event shall be binding on the bidder.
10. No request for Time extension of the reverse auction event shall be considered by BRPL.

ANNEXURE -IV**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
_____ 20TH E

CONDITIONS of this obligation are:

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 ONE TWENTY DAYS(120) 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

SI N	Item Description	AS PER BR SPL	BIDDER'S CONFIRMATIO
1	Validity	120 days from the date of offer.	
2	Price basis	a) Firm , FOR Delhi store basis. Prices shall be inclusive of all taxes & duties, freight up to Delhi stores. b) Unloading at stores shall be in vendor's 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	

Bidder should also furnish the below details for future communication:-

FOR TECHNICAL QUERY:		
CONTACT PERSON & DESIGNATION	NAME	DESIGNATION
E-MAIL	MOBILE NO	TELEPHONE NO

FOR COMMERCIAL QUERY:		
CONTACT PERSON & DESIGNATION	NAME	DESIGNATION
E-MAIL	MOBILE NO	TELEPHONE NO

ANNEXURE VI**NO DEVIATION SHEET**

SL NO	SL NO OF TECHNICAL SPECIFICATION	DEVIATIONS,IF ANY

SIGNATURE & SEAL OF BIDDER**NAME OF BIDDER**

ANNEXURE-VII**FORMAT FOR BACKUP OF SUPPLY & PERFORMANCE QUANTITY**

S.No	PO No	PO Date	PO Qty	Supplied		Customer	F.Y
				Qty.	Date		

CHECK LIST

Sl No	Item Description	YES/NO
1	INDEX	YES/NO
2	COVERING LETTER	YES/NO
3	BID FORM (UNPRICED) DULY SIGNED (1 nos. Original +1 nos. Photo Copy)	
4	BILL OF MATERIAL (UNPRICED) (1 nos. Original +1 nos. Photo Copy)	YES/NO
5	TECHNICAL BID (1 nos. Original +1 nos. Photo Copy)	YES/NO
6	ACCEPTANCE TO COMMERCIAL TERMS AND CONDITIONS	YES/NO
7	FINANCIAL BID (IN SEALED ENVELOPE – 1 ORIGINAL)	YES/NO
8	EMD IN PRESCRIBED FORMAT	YES/NO
9	DEMAND DRAFT OF RS 1180/- DRAWN IN FAVOUR OF	BSES RAJDHANI POWER LTD
10	POWER OF ATTORNEY/AUTHORISATION LETTER FOR SIGNING THE BID	
11	ACCEPTANCE FORM FOR REVERSE AUCTION	YES/NO
12	PLANT MANUFACTURING CAPACITY (CA CERTIFIED)	YES/NO
13	ANNUAL TURNOVER (CA CERTIFIED)	YES/NO
14	PERFORMANCE CERTIFICATE AS PER QR	YES/NO
15	SUPPLIED QUANTITY AS PER PQR	YES/NO
16	ISO Certification /Any other certification/Type test Report/BIS etc as per PQR	YES/NO
17	Quality Assurance /Organization Chart	YES/NO
18	Undertakings as per NIT	YES/NO
19	Technical Deviation	YES/NO
20	SUPPLIED/PERFORMANCE QTY AS PER QR (IN ANNEXURE-VII) CA CERTIFIED	YES/NO

Note : The above document must be properly tagged with page nos.