

KERALA STATE ELECTRICITY BOARD LIMITED



**OFFICE OF THE EXECUTIVE ENGINEER
PROJECT MANAGEMENT UNIT
ELECTRICAL CIRCLE KSEB Limited,
KASARAGOD**

**E-Tender No: 19/24-25 /EE/PMU/KSD dt 25-07-2024
Tender Document**

(Tender Conditions and Technical Specification)

**CONSTRUCTION OF 11KV LINE AND INSTALLATION OF
TRANSFORMER AT BENDRODU- THALABAIL UNDER
ELECTRICAL SECTION, MULLERIYA**

BID DOCUMENT

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Sd/-
EXECUTIVE ENGINEER
PROJECT MANAGEMENT UNIT, KSEB
KASARAGOD

KERALA STATE ELECTRICITY BOARD LIMITED



OFFICE OF THE EXECUTIVE ENGINEER PROJECT MANAGEMENT UNIT, ELECTRICAL CIRCLE, KSEB LTD, KASARAGOD

Notice Inviting Tender

E-Tender No: 19/24-25 /EE/PMU/KSD dt 25-07-2024

Competitive online tenders are invited from reputed contractors for the work of “CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER AT BENDRODU- THALABAIL UNDER ELECTRICAL SECTION, MULLERIYA”

Tender Reference No.	19/24-25 /EE/PMU/KSD dt 25-07-2024
Probable Amount of Contract	Rs. 7,20,505/-
Earnest Money Deposit	18,100/- (By on-line payment by MOPS only)
Tender Document fee	Rs.1500 + GST @18% (Total=Rs 1770/-) (By on-line payment by MOPS only)
Tender Document download/sale start date	26-07-2024, 4.00 P.M
Start date and time of online submission of bid	27-07-2024, 9.00 A.M
Last date and time of online submission of bid	09-08-2024, 5.00 PM
Date & Time of opening of Bid	14-08-2024, 3.30 AM
Availability of bid forms	Can be downloaded from the website: https://etenders.kerala.gov.in

TERMS AND CONDITIONS

1. All bidders participating in the tender should have a valid Digital Signature Certificate availed from an approved Certifying Authority. More details about e- tendering procedure will be available from National Informatics Centre, Thiruvananthapuram on all working days from 10.30 am to 5.30 pm.(Phone No.0471-2577088,2577188,91-9995755177).

2. The bid documents and other details can be down loaded from the website www.etenders.kerala.gov.in.

3. The Earnest Money Deposit (EMD) for an amount of Rs. 20600/- and non-refundable tender document fee of Rs. 2006/- (Rs. 1700 plus 18% GST), total Rs. 22606/- (Rupees Twenty Two Thousand Six Hundred and Six Only) shall be remitted online to the account number in the remittance form provided by the e-Procurement system for this particular tender. Only MOPS remittance is allowed. The MOPS facility for online payment may be exercised at least 48 hours before the closing date of the bid to ensure that payment towards tender document fee and EMD are credited and a confirmation is reflected in the e-procurement system. Mode of payment other than MOPS will not be allowed. Separate or split remittance for tender document fee and EMD shall be treated as invalid transactions. Kerala Government Public Sector undertakings are exempted from furnishing EMD.

4. The offers shall be submitted in Single Bid.

5. All the tender documents are to be submitted online only and in the designated covers on the above website and no manual submission shall be entertained.

6. The rate should remain firm for 6 months from the date of opening of pre-qualification bid. The rate should be quoted as per format given in the e-tender portal.

7. The taxes and duties applicable should be indicated separately.

8. All communications regarding the tender including queries if any shall be done online within the e-procurement system at website <https://etenders.kerala.gov.in/nicgep/app>

9. The bid shall be opened online at the office of the Executive Engineer, Project Management Unit, KSEB Ltd, Kasaragod on the date and time mentioned above. Those intending bidders/their representatives may be present at the time of opening.

10. The successful bidder shall execute an agreement in form prescribed by the Board for the due fulfilment of the contract within the period specified in the Work Order and shall furnish security deposit equal to 5 % of the contract value before signing the agreement.

11. KSEB Ltd. reserves the right to reject any or all tenders without assigning any reasons thereof.

12. This notice can also be viewed in KSEB website www.kseb.in. Further details, if any required, can be had from the Office of Executive Engineer, Project Management Unit, KSEB Ltd, Kasaragod, Phone: 04994 230382

13. Kerala government public sector undertakings and those who possess valid UDYAM Registration are exempted from furnishing EMD. All communications shall be addressed to the Executive Engineer only.

Sd/-

EXECUTIVE ENGINEER
PROJECT MANAGEMENT UNIT, KSEB
KASARAGOD

**KERALA STATE ELECTRICITY
BOARD LIMITED**

**E-Tender No: 19/24-25
/EE/PMU/KSD dt 25-07-2024**

**“CONSTRUCTION OF 11KV LINE
AND INSTALLATION OF
TRANSFORMER AT BENDRODU-
THALABAIL UNDER ELECTRICAL
SECTION, MULLERIYA”**

PART – I

TENDER CONDITIONS AND TECHNICAL SPECIFICATION

TABLE OF CLAUSES

Clause No.	Description
1.1	Invitation for Bids
1.2	Eligibility and qualification of bidders
1.3	Earnest Money Deposit

1.1 INVITATION FOR BIDS

E Tender No: **19/24-25 /EE/PMU/KSD dt 25-07-2024**

SCHEME

1.1.1 The Kerala State Electricity Board Ltd invites e-tenders under competitive bidding from eligible bidders for the work of **“CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER AT BENDRODU- THALABAIL UNDER ELECTRICAL SECTION, MULLERIYA”**

1.1.2 The Scheme will be implemented and supervised by the Kerala State Electricity Board Ltd.

1.2 ELIGIBILITY AND QUALIFICATION OF BIDDERS.

1.2.1 This invitation for bid is open to all bidders who meet the following criteria.

An Electrical Contractor (Preferably A – Class) who may be an individual or firm, having experience in executing similar works and have adequate technical knowledge and practical experience in India in the works of DTR installation and 11kV ABC or similar.

1.2.2 Capability for timely acquisition/procurement (own, lease, hire etc.) of the essential equipment such as (i) Construction machinery for Civil/Electrical works, (ii) Material handling facilities for erection.

1.2.3 The bidder shall not anticipate a change in ownership during the proposed period of execution of works.

1.3 EARNEST MONEY DEPOSIT

The Earnest Money Deposit (EMD) for an amount of Rs. 20600 /- and non-refundable tender document fee of Rs. 2006/- (Rs. 1700

plus 18% GST), total Rs 22606/- (Rupees Twenty Two Thousand Six Hundred and Six Only) shall be remitted online to the account number in the remittance form provided by the e-Procurement system for this particular tender. Only MOPS remittance is allowed. The MOPS facility for online payment may be exercised at least 48 hours before the closing date of the bid to ensure that payment towards tender document fee and EMD are credited and a confirmation is reflected in the e-procurement system. Mode of payment other than MOPS will not be allowed. Separate or split remittance for tender document fee and EMD shall be treated as invalid transactions. Kerala Government Public Sector undertakings and those who possess valid UDYAM Registration are exempted from furnishing EMD.

Sd/-

Executive Engineer

INSTRUCTION TO BIDDERS
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INSTRUCTION TO BIDDERS

2.1 GENERAL INSTRUCTIONS

KSEB Ltd. hereinafter will receive bids in respect of work to be carried out as set forth in the accompanying specifications. All bids shall be prepared and submitted in accordance with these instructions.

2.2 SCOPE OF BID

The KSEB Ltd. invites bids for "CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER AT BENDRODU- THALABAIL UNDER ELECTRICAL SECTION, MULLERIYA, testing and commissioning of the constructed line and handing over of the line to KSEB Ltd. for the full satisfaction of the KSEB Ltd. as defined in the bid document as 'work'.

The successful bidder shall complete the works within 3 months from the date of execution of agreement.

The Scope of the Proposal shall be on the basis of a single Bidder's responsibility, completely covering all the equipment and their erection specified under the accompanying Technical Specifications. It will include the Receipt, Storage, preservation and conservation of materials at the site.

Bids containing deviations from provisions relating to the following clauses will be considered as non-responsive.

- EMD
- Security Deposit
- Payment.

KSEB Ltd's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

Bids not covering the entire scope of the project shall be treated incomplete and hence, are liable to be rejected.

2.3 ELIGIBLE BIDDERS

The bidders who are experienced in HT ABC work preferably having contract licence.

2.4 ELIGIBILITY & QUALIFICATION REQUIREMENT FOR BIDDERS

2.4.1 The Bidder shall preferably possess a valid Class - A Electrical Contractor licence issued by Govt. Of Kerala

2.4.2 The bidder should have experience in HT ABC work and enclose relevant documents (completion certificate) for having executed such works. Also have orders in hand (work in progress) & submit relevant Work Order Copies along with the tender.

2.4.3 Bidder must declare the sub-contractors name, if any, who will execute the work. The contractor must be having labour licence.

2.4.4 All staff and labours shall be covered under insurance. The contractor shall obtain an insurance coverage in respect of the employees engaged by him from a Nationalized / at par Insurance Company by paying adequate premium to cover the compensation payable in case of fatal and non fatal accident if any occurred to the employees. The insurance coverage obtained as per above shall be sufficient enough to cover all the expenses payable on behalf of the fatal/nonfatal accident victims viz hospital expenses, Half Monthly Compensation, funeral expenses, compensation (death and disablement-total and partial) interest @ 12% payable from the date of accident to the date of deposit of compensation and other financial benefits payable as per the provisions of the Employees' Compensation Act, 1922. The Contractor shall submit the policy document in original to the Executive Engineer before execution of Contract Agreement. Such copies of documents shall be submitted to the Executive Engineer immediately after such insurance coverage. The Contractor shall also inform the Employer in writing at least sixty (60) days in advance regarding the expiry/cancellation and/or change in any of such documents and ensure revalidation, renewal etc., as may be necessary well in time. It will be the responsibility of the contractor to maintain all necessary insurance coverage to the extent both in time and amount to take care of all its liabilities either direct or indirect, in pursuance of the contract,

till the handing over of the works. KSEBL will not give any financial assistance on this account.

2.4.5 Bidder should furnish experience certificates, completion certificate etc.

2.4.6 All bids submitted shall also include the following information

Copies of original documents defining the constitution or legal status, place of registration and principle place of business of the company or firm or partnership etc, written power of attorney of authorised signatory of the bidder to commit the bid.

2.4.7 Even though the bidder meets the above qualifying criteria he is subjected to be disqualified if he has made:-

- Misleading or false representations in the statements and attachments submitted in proof of qualification requirements and/or
- Record of poor performance such as not properly completing the contract, litigation history of financial failure.

2.4.8 Notwithstanding anything stated above, KSE Board Ltd. reserve the right to access bidder's capability and capacity to perform the contract.

2.4.9 Bidder who is black listed while carrying out works in any utilities is not eligible for participating in this tender.

2.5 BIDDING DOCUMENTS

2.5.1 CONTENTS OF BIDDING DOCUMENT

The goods and services required, bidding procedures and contract terms are prescribed in the bidding document.

In addition to the invitation to Bids, the bidding document consists of

- Instruction to bidders
- General conditions of contract
- Technical Specifications
- Price Bid (BOQ)

2.5.2 CLARIFICATIONS ON BID DOCUMENTS

Verbal clarification and information given by KSEB Ltd., his employee(s) or his representative(s) shall not in any way be binding on KSEB Ltd.

2.6 COST OF BIDDING

The bidder shall bear all costs and expenses associated with the preparation and submission of the bid and KSEB will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the contract.

2.7 LOCAL CONDITIONS

2.7.1 It will be imperative on each Bidder to fully inform himself of all local conditions and factors, which may have any effect on the execution of the contract covered under these documents and specifications. KSEB Ltd. shall not entertain any request for clarifications from the Bidders, regarding such local conditions.

2.7.2 It must be understood and agreed that such factors have properly been investigated and considered while submitting the proposals. No claim for financial adjustment to the Contract, awarded under these specifications and documents, will be entertained by KSEB Ltd. Neither any change in the time schedule of the Contract nor any financial adjustments arising thereof shall be permitted by the Employer, which are based on the lack of such clear information or its effect on the cost of the Works to the Bidder.

2.8 PREPARATION OF BIDS

2.8.1 LANGUAGE OF BID

The bid prepared by the Bidder and all correspondences and documents relating to the bid, exchanged by the Bidder and KSEB Ltd shall be written in the English language.

2.8.2 DOCUMENTS COMPRISING THE BID

The bid submitted by bidder shall comprise the following

- a. Bid agreement and other certificates.
- b. Price bid form complete, price schedule and other documents.

2.9 BID PRICE

2.9.1 The contract shall be for " the Works" as described in General terms and conditions of contract.

2.9.2 The bidder shall indicate bid prices in Indian rupees only

2.9.3 The Bidder shall quote in the price schedule the lump-sum price labour.

2.9.4 Price quoted shall be firm and for site basis inclusive of all statutory levies and not subject to price variation during the subsistence of the Contract.

2.9.5 Discount offered, if any, shall be prominently indicated on the Bid Form.

2.9.6 As regards Income Tax, surcharge on Income Tax and any other Corporate Tax, Kerala Construction Workers Welfare Fund, KSEB shall not bear any tax liability whatsoever irrespective of the mode of contracting. The bidder shall be liable and responsible for payment of such taxes attracted under the provision of law. Tax will be deducted at source.

2.9.7 Service tax as per rules will be levied and deducted from labour portion of the contract.

2.9.8 Any liasoning with the Govt/Public sector authorities like BSNL, Inspectorate shall be by the bidder.

2.10 BID VALIDITY

2.10.1 Bid shall remain valid for a period of 180 days from the date of opening of the bid.

2.10.2 In exceptional circumstances, KSEB Ltd. may request the bidder's to extend the period of validity for a specified additional period. The request and the Bidder's responses shall be made in writing or by fax. A bidder may refuse the request without forfeiting his bid EMD. A bidder agreeing to the request will not be required or permitted to modify his bid but will be required to extend the validity of his bid EMD for the period of the extension, and in compliance with Clause 2.10 in all respects.

2.11 BID EARNEST MONEY DEPOSIT (EMD)

2.11.1 The bidder shall furnish as part of his bid, a bid EMD.

2.11.2 A bid Earnest Money Deposit (EMD) for an amount of Rs. 20600/- and non-refundable tender document fee of Rs. 2006/- (Rs. 1700 plus 18% GST), total Rs 22606/- (Rupees Twenty Two Thousand Six Hundred and Six Only) shall be remitted online to the account number in the remittance form provided by the e-Procurement system for this particular tender. Only MOPS remittance is allowed. The MOPS facility for online payment may be exercised at least 48 hours before the closing date of the bid to ensure that payment towards tender document fee and EMD are credited and a confirmation is reflected in the e-procurement system. Mode of payment other than MOPS will not be allowed. **Separate or split remittance for tender document fee and EMD shall be treated as invalid transactions.** Kerala Government Public Sector undertakings and those who possess valid UDYAM Registration are exempted from furnishing EMD.

2.11.3 Any bid not accompanied by an original Bid-Form and adequate EMD with correct Bid reference in original shall be rejected by KSEB Ltd. The bid shall also be rejected if the provisions of Clause 2.10.2 above are not complied with by the Bidder.

2.11.4 The EMD of unsuccessful bidders will be returned as early as possible.

2.11.5 The EMD of the successful bidders will be discharged when the bidder has signed the Agreement and furnished the required security deposit.

2.11.6 The EMD will be forfeited

a. If the Bidder does not accept the correction of his Bid price pursuant to Clause 2.15.2.

b. In the case of successful Bidder, if he fails within the specified time limit to sign the Agreement and furnish required performance security.

2.12 PROCESS TO BE CONFIDENTIAL

Information relating to the examination, clarification, evaluation, comparison of Bids and recommendations for the award of Contract shall not be disclosed to bidder's or any other persons not other than officers concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to influence KSEB Ltd. in processing of Bids or award decision shall result in the rejection of bid.

2.13 CLARIFICATION OF BIDS

To assist in the examination, evaluation and comparisons of bids, KSEB Ltd. may, at its discretion, ask any bidder for clarification of his bid including breakdown of the prices in the Price Schedule. Request for clarification and the response shall be in writing, no change in price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors noted by KSEB Ltd. in the evaluation of the bid in accordance of Clause 2.15.

2.14. EXAMINATION OF BIDS AND DETERMINATION OF SUBSTANTIAL RESPONSIVENESS

2.14.1 Prior to the detailed evaluation bids, the KSEB Ltd. will determine whether each Bid has been properly signed is substantially responsive to the requirements of the bidding documents and provides any clarification and/or substantiation that KSEB Ltd. may require.

2.14.2 A substantially responsive bid is one which conforms to all the terms, conditions and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one which affect any substantial way, the scope, quality or performance of work which limits in any substantial way, inconsistent with the Bidding documents, KSEB Ltd's right or the bidder's obligations under the Contract; or whose rectification would affect unfairly the competitive position of the other bidder's presenting substantially responsive bids.

2.14.3 If a Bid is not substantially responsive, it will be rejected by KSEB Ltd. and may not subsequently be made responsive by correction or withdrawal of the Non-confirming deviation or reservation.

2.15 CORRECTION OF ERRORS

2.15.1 Bids determined to be substantially responsive will be checked by KSEB Ltd. for any arithmetic errors. Errors will be corrected by KSEB Ltd. as follows: where there is a discrepancy between the amount in figures and in word, the amount in words will govern.

2.15.2 The amount stated in the form of Bid will be adjusted by KSEB Ltd. in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the bidder does not accept the corrected amount of Bid, his Bid shall be rejected and the bid security will be forfeited.

2.16 CURRENCY FOR BID EVALUATION

Bid price is the sum of all payments to be made to the Bidder. Price should be quoted in Indian Rupees only.

2.17 EVALUATION AND COMPARISON OF BIDS

2.17.1 KSEB Ltd. will evaluate and compare only the bid determined to be substantially responsive.

2.17.2 In evaluating the Bids, KSEB Ltd. will determine for each bid the evaluated Bid Price by adjusting the Bid Price as follows:
a) Making any correction of errors pursuant to clause 2.15 or making any appropriate adjustment for any other acceptable variation and deviations.

2.17.3 The comparison of Bids shall be done based on the financial commitment on account of the work including the applicable taxes and duties furnished by the bidder, such price to include all costs as well as duties and taxes paid or payable on components and raw materials incorporated or to be incorporated in the Goods.

2.17.4 KSEB Ltd's evaluation of Bid will be taken into account, in addition to the Bid price as referred in clause 2.17.2 above, incidental services, cost of other factors detailed below in the manner and to the extent indicated in the technical specification.

- Completion Schedule offered in the Bid
- Deviations in payment schedule from that specified Conditions of contract.

2.17.5 Completion Schedule: KSEB Ltd. desires to have completion of the works at the time specified. Bid, offering completion beyond three months of period specified in Bid Document will be treated as non-responsive.

2.17.6 Deviation in payment schedule: Bidders shall state their Bid Price considering the payment terms outlines in the Conditions of Contract. Bids will be evaluated on the basis of this price. No alternative payment terms will be accepted. Bids will be rejected if there is any deviation in the payment terms of the Bid Document.

2.17.7 KSEB Ltd. reserves the right to accept or reject any variation or deviation. Variation and deviation and other factors which

are in excess of the requirements of the bidding documents or otherwise result in unsolicited benefits for KSEB Ltd. shall not be taken into account in bid evaluation.

2.18 AWARD OF CONTRACT

2.18.1 AWARD CRITERIA

KSEB Ltd. will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the bidding documents and who has offered the Lowest Evaluated Price, provided that such Bidder has been determined to be qualified in accordance with provisions of bid.

2.19 KSEB Ltd. 'S RIGHT TO ACCEPT ANY BID AND REJECT ANY OR ALL BIDS

Notwithstanding Clause 2.18, KSEB Ltd. reserves the right to accept or reject any bid, and to cancel 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 bidder's or any obligation to inform affected bidder on the grounds for KSEB Ltd 's action.

2.20 NOTIFICATION OF AWARD

2.20.1 Prior to the expiration of bid validity prescribed by KSEB Ltd. , KSEB Ltd. will notify the successful bidder by email/confirm by registered letter, his bid has been accepted This letter hereinafter called the Letter of Acceptance shall include the sum which KSEB Ltd will pay the Contractor in consideration of Works by the Contractor as prescribed by the Contract (hereinafter in the Contract called the "Contract Price").

2.20.2 The notification of the award will constitute the formalities of contract subject only to the furnishing of performance security in accordance with the provisions of Clause 2.21 and signing of agreement.

2.20.3 The successful Bidder shall execute Contract agreement as per proforma attached within a period of 15 days from the notification of award.

2.21 SECURITY

- 2.21.1 Within 15 calendar days of the notification of award from KSEB Ltd., the successful bidder shall furnish to KSEB Ltd. a security deposit for an amount equivalent to five (5) percent of the contract Price.
- 2.21.2 The security deposit shall be from a Nationalized/ Scheduled Bank, except those blacklisted by KSEB Ltd.
- 2.21.3 Failure of the successful bidder to comply with the requirements of this Clause 2.21 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid EMD and other appropriate penal action.
- 2.21.4 In the event of any dispute arising between KSEB Ltd. and the contractor, KSEB Ltd. shall be entitled to deduct from the security deposit or the balance thereof until such dispute is determined, the amount of such damages caused, charges and expenses as may be claimed.

2.22 AGREEMENT

In the event of acceptance of particular bid for award of Contract, such successful Bidder has to execute Contract Agreement within 15 days along with the Security deposit as per Clause 2.21.1.

**Sd/-
Executive Engineer**

SECTION - 3

GENERAL CONDITIONS OF CONTRACT

TABLE OF CLAUSES

CLAUSE No.	DESCRIPTION
3.1	INTRODUCTION
3.2	GUARANTEES & LIABILITIES
3.3	PAYMENTS
3.4	RISK DISTRIBUTION
3.5	RESOLUTION OF DISPUTES

3.1 INTRODUCTION

3.1.1 DEFINITION OF TERMS

'Contract' means the agreement entered into between the Employer and the Contractor as per the Contract Agreement signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

'Employer' shall mean KSEB Ltd. and shall include its legal representatives, successors and assigns.

'Contractor' or 'Manufacturer' shall mean the Bidder whose bid will be accepted by the Employer for the award of the Works and shall include such successful Bidder's legal representatives, successors and permitted assigns.

'Sub-Contractor' shall mean the person named in the Contract for any part of the Works or any person to whom any part of the Contract has been sublet by the Contractor with the consent in writing of the Engineer and will include the legal representatives, successors and permitted assigns of such person.

'Engineer' shall mean the officer appointed in writing by the Employer to act as Engineer from time to time for the purpose of the Contract.

'Consulting Engineer'/'Consultant' shall mean any firm or person duly appointed as such from time to time by the Employer.

'Equipment', 'Stores' and 'Materials' shall mean and include equipment, stores and materials to be provided by the Contractor under the Contract.

'Works' shall mean and include the furnishing of equipment, labour and services, as per the Specifications and complete erection, testing and putting into satisfactory operation including all transportation, handling, unloading and storage at the Site as defined in the Contract.

'Specifications' shall mean the Specifications and Bidding Document forming a part of the Contract and such other schedules and drawings as may be mutually agreed upon.

'Site' shall mean and include the land and other places on, into or through which the works and the related facilities are to be erected or installed and any adjacent land, paths, street or reservoir which may be allocated or used by the Employer or Contractor in the performance of the Contract.

'Contract Price' shall mean the lump-sum price quoted by the Contractor in his bid with additions and/or deletions as may be agreed and incorporated in the Letter of Award, for the entire scope of the works.

'Erection Portion/Installation' of the Contract price shall mean the value of field activities of the works including erection, testing and putting into satisfactory operation including successful completion of performance and guarantee tests to be performed at Site by the Contractor including cost of insurances.

'Manufacturer's Works' or 'Contractor's Works' shall mean the place of work used by the manufacturer, the Contractor, their collaborators/associates or Sub-Contractors for the performance of the Contract.

'Inspector' shall mean the Employer or any person nominated by the Employer from time to time, to inspect the equipment; stores or Works under the Contract and/or the duly authorized representative of the Employer.

'Notice of Award of Contract'/'Letter of Award'/'Telex of Award' shall mean the official notice issued by the Employer notifying the Contractor that his bid has been accepted.

'Date of Contract' shall mean the date on which Notice of Award of Contract/Letter of Award/ Work order has been issued.

'Month' shall mean the calendar month. 'Day' or 'Days' unless herein otherwise expressly defined shall mean calendar day or days of 24 hours each.

'Week' shall mean continuous period of seven (7) days.

'Writing' shall include any manuscript, type written or printed statement, under or over signature and/or seal as the case may be.

'Approved', 'Subject to Approval', 'Satisfactory', 'Equal to', 'Proper', 'Requested', 'As Directed', 'Where Directed', 'When Directed', 'Determined by', 'Accepted', 'Permitted', or words and phrases of like importance are used the approval, judgment, direction etc. is understood to be a function of the Employer/Engineer.

Test on completion shall mean such tests as prescribed in the Contract to performed by the Contractor before the work is taken over by Employer.

"Operation' shall mean the integral operation of the complete equipment covered under the Contract with the sub-system and supporting equipment in service or available for service. The length of operation shall be as determined by the Engineer, unless otherwise specified elsewhere in the Contract.

'Performance and Guarantee Tests' shall mean all operational checks and tests required to determine and demonstrate capacity, efficiency, and operating characteristics as specified in the Contract Documents.

'Final Acceptance'/'Taking Over' shall mean the Employer's written acceptance of the Works performed under the Contract, after successful commissioning/completion of Performance and Guarantee Tests, as specified in the accompanying Technical Specifications or otherwise agreed in the Contract.

'Guarantee Period'/'Maintenance Period' shall mean the period during which the Contractor shall remain liable for repair or replacement of any defective part of the works performed under the Contract.

'Latent Defects' shall mean such defects caused by faulty designs, material or workmanship which cannot be detected during inspection, testing etc, based on the technology available for carrying out such tests.

'Drawing', 'Plans, shall mean all:

Drawings furnished by the Employer/Consultant as a basis of Bid/Proposals.

Supplementary drawings furnished by the Employer/Consultant to clarify and to define in greater detail the intent of the Contract.

Drawings submitted by the Contractor with his bid provided such drawings are acceptable to the Employer/Consultant.

Drawings furnished by the Employer/Consultant to the Contractor during the progress of the work; and Engineering data and drawings submitted by the Contractor during the progress of the work provided such drawings are acceptable to the Engineer/Employer.

'Codes' shall mean the following including the latest amendments and/or replacements, if any:

Indian Electricity Act, 1910 and Rules and Regulations made there under.

Indian Factory Act, 1948 and Rules and Regulations made there under.

Indian Explosives Act, 1884 and Rules and Regulations made there under.

Indian Petroleum Act, 1934 and Rules and Regulations made there under.

A.S.M.E. Test Codes.

A.I.E.E. Test Codes.

American Society of Materials Testing Codes.

Standards of the Indian Standards Institution.

Other Internationally approved standards and/or rules and regulations touching the subject matter of the Contract.

Words imparting the singular only shall also include the plural and vice -versa where the context so requires.

Words imparting 'Person' shall include firms, companies, corporations and associations or bodies of individuals, whether incorporated or not.

Terms and expressions not herein defined shall have the same meaning as are assigned to them in the Indian Sale of Goods Act (1930), failing that in the Indian Contract Act (1872) and failing that in the General Clauses Act (1897) including amendments thereof, if any.

The various Acts and Regulations are normally available for sale from the following addresses:

Deputy Controller Publication Department Government of India Civil Lines, DELHI-110 006

Dept. Of Publication (Government of India), KitabMahal Unit No.21, Emporia Building, Baba Kharak Singh Marg, NEW DELHI - 110001

Or

With leading authorised Government of Indian Book -Sellers.

In addition to the above the following definitions shall also apply:

'All equipment and materials' to be supplied shall also mean 'Goods'.

'Constructed' shall also mean 'erected and installed'.

3.1.2 APPLICATION

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3.1.3 STANDARDS

The works undertaken by this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard

appropriate to the works and such standards shall be the latest issued by the concerned institution.

3.1.4 LANGUAGE AND MEASURES

All documents pertaining to the Contract including specifications, schedules, notices, correspondences, operating and maintenance instructions, drawings or any other writing shall be written in English language. The Metric System of measurement shall be used exclusively in the Contract.

3.1.5 CONTRACT DOCUMENTS

The term Contract Documents shall mean and include the following, which shall be deemed to form an integral part of the Contract:

- Invitation to Bid
- Instruction to Bidders
- General Terms and conditions of contract
- Technical Field requirement and Technical Specification
- Tender Agreement
- Contractor's tender proposal including clarification letter
- Letter of acceptance
- Work Order
- Agreement

In the event of any conflict between the above mentioned documents the matter shall be referred to the Engineer whose decision will be final and binding upon the parties.

3.1.6 USE OF CONTRACT DOCUMENTS AND INFORMATION

The Contractor shall not, without the Employer's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Employer in connection therewith, to any person other than a person employed by the Contractor in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for the purpose of such performance.

The Contractor shall not, without the Employer's prior written consent, make use of any document or information enumerated in various Contract documents except for the purpose of performing the Contract.

The Contractor shall not communicate or use in advertising, publicity, sales releases or in any other medium, photographs or other reproduction of the Works under this Contract, or descriptions of the site, dimensions, quantity, quality or other information, concerning the works unless prior written permission has been obtained from the Employer.

Any document, other than the Contract itself, enumerated in various Contract documents shall remain the property of the Employer and shall be returned (in all copies) to the Employer on completion of the Contractor's performance under the Contract if so required by the Employer.

3.1.7 JURISDICTION OF CONTRACT

The court situated at the place where the Office of the tenderer is situated viz. Kasaragod alone will have jurisdiction to entertain civil suits and legal proceedings pertaining to this contract.

The contract shall in respect will construed and governed according to Indian laws.

3.1.8 MANNER OF EXECUTION OF CONTRACT

The Employer, after the issue of the Letter of Award to the Contractor, will send one copy of the final agreement to the Contractor for his scrutiny and approval.

The Agreement, unless otherwise agreed to, shall be signed within 15 days of the acceptance of the Letter of Award, at the office of the Employer on a date and time to be mutually agreed. The Contractor shall provide for signing of the Contract, security deposit, appropriate power of attorney and other requisite materials. In case the Contract is to be signed beyond the stipulated time, the Bid Guarantee submitted with the Proposal will have to be extended accordingly.

Subsequent to signing of the Contract, the Contractor at his own cost shall provide the Employer with three (3) true copies of agreement for execution of agreement.

3.1.9 ENFORCEMENT OF TERMS

The failure of either party to enforce at any time any of the provisions of this Contract or any rights in respect thereto or to exercise any option therein provided, shall in no way be construed to be a waiver of such provisions, rights or options or in any way to affect the validity of the Contract. The exercise by either party of any of its rights herein shall not preclude or prejudice either party from exercising the same or any other right it may have under the Contract.

3.1.10 COMPLETION OF CONTRACT

The contractor shall begin the works immediately on signing the agreement and shall complete the work within 90 days from the date of agreement.

3.2 GUARANTEES & LIABILITIES

3.2.1 TIME – THE ESSENCE OF CONTRACT

The time and the date of completion of the Contract as stipulated in the Contract by the Employer without or with modifications, if any, and so incorporated in the Letter of Award, shall be deemed to be the essence of the Contract. The Contractor shall so organize his resources and perform his work as to complete it not later than the date agreed to.

3.2.2 EFFECTIVENESS OF CONTRACT

The Contract shall be considered as having come into force from the date of the notification of award unless otherwise provided in the notification of award.

3.2.3 TAXES, PERMITS & LICENCES

The Contractor shall be liable and pay all non-Indian taxes, duties, levies lawfully assessed against the Employer or the Contractor in pursuance of the Contract. In addition the Contractor shall be responsible for payment of all Indian duties, levies and taxes lawfully assessed against the Contractor for his personal income & property only.

3.2.4 DEFENCE OF SUITS

If any action in court is brought against the Employer or Engineer or an officer or agent of the Employer, for the failure, omission or neglect on the part of the Contractor to perform any acts, matters, covenants or things under the Contract, or for damage or injury caused by the alleged omission or negligence on the part of the Contractor, his agents, representatives or his Sub-Contractors, or in connection with any claim based on lawful demands of Sub-

Contractors, workmen, suppliers or employees, the Contractor shall in all such cases indemnify and keep the Employer, and the Engineer and/or his representative, harmless from all losses, damages, expenses or decrees arising of such action.

3.2.5 ENGINEER'S DECISION

In respect of all matters which are left to the decision of the Engineer including the granting or with-holding of the certificates, the Engineer shall, if required to do so by the Contractor, give in writing a decision thereon.

If, in the opinion of the Contractor, a decision made by the Engineer is not in accordance with the meaning and intent of the Contract, the Contractor may file with the Engineer, within fifteen (15) days after receipt of the decision, a written objection to the decision. Failure to file an objection within the allotted time will be considered as an acceptance of the Engineer's decision and the decision shall become final and binding.

It is the intent of the Agreement that there shall be no delay in the execution of the works and the decision of the Engineer as rendered shall be promptly observed.

3.2.6 POWER TO VARY OR OMIT WORK

No alterations, amendments, omissions, suspensions or variations of the works (hereinafter referred to as 'variation') under the Contract as detailed in the Contract Documents, shall be made by the Contractor except as directed in writing by the Engineer, but the Engineer shall have full powers subject to the provisions hereinafter contained, from time to time during the execution of the Contract, by notice in writing to instruct the Contractor to make such variation without prejudice to the Contract. The Contractor shall carry out such variation and be bound by the same conditions as far as applicable as though the said variations occurred in the Contract Documents. If any suggested variations would, in the opinion of the Contractor, if carried out, prevent him from fulfilling any of his obligations or guarantees under the Contract, he shall notify the Engineer thereof in writing and the Engineer shall decide forthwith whether or not, the same shall be carried out and if the Engineer confirms his instructions, the Contractor's obligations and guarantees shall be modified to such an extent as may be mutually agreed. Any agreed difference in cost occasioned by any such variation shall be added to or deducted from the Contract Price as the case may be.

In the event of Engineer requiring any variation, a reasonable and proper notice shall be given to the Contractor to enable him to work his arrangement accordingly, and in cases where goods or materials are already prepared or any design drawings or pattern made or work done requires to be altered, a reasonable and agreed sum in respect thereof shall be paid to the Contractor.

In any case in which the Contractor has received instructions from the Engineer as to the requirement of carrying out the alterations or additional or substituted work which either then or later on, will in the opinion of the Contractor, involve a claim for additional payment, the Contractor shall immediately after receipt of the instructions aforesaid and before carrying out the instructions advise the Engineer to that effect. But the Engineer shall not become liable for payment of any charges in respect of any such variations, unless the instructions for the performance of the same shall be confirmed in writing by the Engineer. If any variation in the Works results in reduction of Contract Price, the parties shall agree, in writing, so to the extent of any change in the price, before the Contractor proceeds with the change. In all the above cases, in the event of a disagreement as to the reasonableness of the said sum, the decision of the Engineer

shall prevail. Notwithstanding anything stated above in this clause, the Engineer shall have the full power to instruct the Contractor, in writing, during the execution of the Contract to vary the quantities of the items or groups of items. The Contractor shall carry out such variations and be bound by the same conditions as though the said variations occurred in the Contract Documents.

3.2.7 CHANGE OF QUANTITY

During the execution of the Contract, the Employer reserves the right to increase or decrease the quantities of items under the Contract but without any change in unit price or other terms & conditions.

The Contract price shall accordingly be adjusted based on the unit rates available in the Contract for the change in quantities as above. The base unit rates, as identified in the Contract shall however remain constant during the currency of the Contract. In case the unit rates are not available for the change in quantity, the same shall be subjected to mutual agreement.

3.2.8 NO WAIVER OF RIGHTS

Neither the inspection by the Employer or the Engineer or any of their officials, employees, or agents nor any order by the Employer or the Engineer for payment of money or any payment for or acceptance of, the whole or any part of the Works by the Employer or the Engineer, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any provision of the contract, or of any power herein reserved to the Employer or any right to damages herein provided nor shall any waiver of any breach in the Contract be held to be a waiver of any other or subsequent breach.

3.2.9 CERTIFICATE NOT TO AFFECT RIGHT OF EMPLOYER AND LIABILITY OF THE CONTRACTOR.

No interim payment certificate of the Engineer, nor any sum paid on account by the Employer, nor any extension of time for execution of the Works granted by the Engineer shall affect or prejudice the rights of the Employer against the Contractor or relieve the Contractor of his obligation for the due performance of the Contract, or be

interpreted as approval of the Works done or of the equipment furnished and no certificate shall create liability for the Employer to pay for alterations, amendments, variations or additional works not ordered, in writing, by the Engineer or discharge the liability of the Contractor for the payment of damages whether due, ascertained, or certified or not or any sum against the payment of which he is bound to indemnify the Employer, nor shall any such certificate nor the acceptance by him of any sum paid on account or otherwise affect or prejudice the rights of the Employer against the Contractor.

3.2.10 COOPERATION WITH OTHER CONTRACTORS AND CONSULTING ENGINEER

The contractor shall agree to cooperate with the Employers, other contractors and freely exchange with them such technical information as it is necessary to obtain the most efficient and economical design to avoid unnecessary duplication of efforts

3.3 PAYMENTS

3.3.1 PAYMENT

Payment will be effected upon submission of work bill by the contractor after completion of the work.

3.3.2 CURRENCY OF PAYMENT

All payments under the Contract shall be in Indian Rupees only.

3.3.3 APPLICATION FOR PAYMENT

The Contractor shall submit application for the payment to the Engineer in charge of the work who will prepare and submit work bill for the work.

3.3.4 DEDUCTIONS FROM CONTRACT PRICE

All costs, damages or expenses which the Employer may have paid, for which under the Contract the Contractor is liable, will be claimed by the Employer. All such claims shall be billed by the Employer to the Contractor regularly as and when they fall due. Such bills shall be

supported by appropriate and certified vouchers or explanations, to enable the Contractor to properly identify such claims. Such claims shall be paid by the Contractor within thirty (30) days of the receipt of the corresponding bills and if not paid by the Contractor within the said period, the Employer may then deduct the amount, from any moneys due or becoming due by him to the Contractor under the Contract or may be recovered by sections of Law or otherwise.

3.4 RISK DISTRIBUTION

3.4.1 LIABILITY FOR ACCIDENTS AND DAMAGES

Under the Contract, the Contractor shall be responsible for loss or damage to the plant until the successful completion of commissioning as defined else where in the Bid document.

3.4.4 DELAYS BY EMPLOYER OR HIS AUTHORISED AGENTS

In case the Contractor's performance is delayed due to any act of omission on the part of the Employer or his authorized agents, then the Contractor shall be given due extension of time for the completion of the Works, to the extent such omission on the part of the Employer has caused delay in the Contractor's performance of the Contract.

Regarding reasonableness or otherwise of the extension of time, the decision of the Engineer shall be final.

3.4.6 FORCE MAJEURE

Force majeure is herein defined as any cause which is beyond the control of the Contractor or the Employer as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the Contract, such as:

Natural phenomena, including but not limited to floods, droughts, earthquakes and epidemics;

Acts of any Government, domestic or foreign, including but not limited to war, declared or undeclared, priorities, guarantees, embargoes.

Provided either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such causes.

The Contractor or the Employer shall not be liable for delays in performing his obligations resulting from any force majeure cause as referred to and/or defined above

The date of completion will, subject to hereinafter provided, be extended by a reasonable time even though such cause may occur after Contractor's performance of obligation has been delayed due to other causes.

3.4.7 SUSPENSION OF WORK

The Employer reserves the right to suspend and reinstate execution of the whole or any part of the Works without invalidating the provisions of the Contract. Orders for suspension or reinstatement of the Works will be issued by the Engineer to the Contractor in writing. The time for completion of the works will be extended for a period equal to duration of the suspension.

Any necessary and demonstrable cost incurred by the Contractor as a result of such suspension of the works will be paid by the Employer, provided such costs are substantiated to the satisfaction of the Engineer. The Employer shall not be responsible for any liabilities if suspension or delay is due to some default on the part of the Contractor or his Sub-Contractor.

3.4.8 CONTRACTOR'S DEFAULT

If the Contractor shall neglect to execute the works with due diligence and expedition or shall refuse or neglect to comply with any reasonable order given to him, in writing by the Engineer in connection with the works or shall contravene the provisions of the Contract, the Employer may give notice in writing to the Contractor to make good the failure, neglect or contravention complained of. Should the Contractor fail to comply with the notice within thirty (30) days from the date of serving the notice, then and in such case the

Employer shall be at liberty to employ other workmen and forthwith execute such part of the works as the Contractor may have neglected to do or if the Employer shall think fit, without prejudice to any other right he may have under the Contract to take the work wholly or in part out of the Contractor's hands and re-contract with any other person or persons to complete the works or any part thereof and in that event the Employer shall have free use of all Contractor's equipment that may have been at the time on the Site in connection with the works without being responsible to the Contractor for fair wear and tear thereof and to the exclusion of any right of the Contractor over the same, and the Employer shall be entitled to retain and apply any balance which may otherwise be due on the Contract by him to the Contractor, or such part thereof as may be necessary, to the payment of the cost of executing the said part of the Works or of completing the Works as the case may be. If the cost of completing of works or executing part thereof as aforesaid shall exceed the balance due to the Contractor shall pay such excess. Such payment of excess amount shall be independent of the liquidated damages for delay, which the Contractor shall have to pay if the completion of works is delayed.

In addition, such action by the Employer as aforesaid shall not relieve the Contractor of his liability to pay liquidated damages for delay in completion of Works as defined in Clause 3.4.10 of this Section.

Such action by the Employer as aforesaid the termination of the Contract under this clause shall not entitle the Contractor to reduce the value of the Contract Performance Guarantee nor the time thereof. The Contract Performance Guarantee shall be valid for the full value and for the full period of the Contract including guarantee period.

3.4.9 TERMINATION OF CONTRACT ON EMPLOYER'S INITIATIVE

The Employer reserves the right to terminate the Contract either in part or in full due to reasons other than those mentioned under clause entitled 'Contractor's Default'. The Employer shall in such an event give fifteen (15) days notice in writing to the Contractor of his decision to do so.

The Contractor upon receipt of such notice shall discontinue the work on the date and to the extent specified in the notice, make all

reasonable efforts to obtain cancellation of all orders and Contracts to the extent they are related to the work terminated and terms satisfactory to the Employer, stop all further sub-contracting or purchasing activity related to the work terminated, and assist Employer in maintenance, protection, and disposition of the works acquired under the Contract by the Employer.

In the event of such a termination the Contractor shall be paid compensation, equitable and reasonable, dictated by the circumstances prevalent at the time of termination.

If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partners dies then unless the Employer is satisfied that the legal representatives of the individual Contractor or of the proprietor of the propriety concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the Contract the Employer shall be entitled to cancel the Contract as to its incomplete part without being in any way liable to payment of any compensation to the estate of deceased Contractor and/or to the surviving partners of the Contractor's firm on account of the cancellation of the Contract. The decision of the Employer that the legal representatives of the deceased Contractor or surviving partners of the Contractor's firm cannot carry out and complete the Contract shall be final and binding on the parties. In the event of such cancellation the Employer shall not hold the estate of the deceased Contractor and/or the surviving partners of the estate of the deceased Contractor and/or the surviving partners of the Contractor's firm liable to damages for not completing the Contract.

3.4.10 LIQUIDATED DAMAGES

Any delay in commissioning a project will adversely affect the total planning which in turn will affect the State and the public exchequer. Hence, for any damage or loss caused to the Board due to the failure from the part of the contractor in completing the work in all respects within the stipulated period of completion, the contractor shall compensate for the same. The liquidated damage is to be realised from the end of the period of completion. The maximum amount of liquidated damage shall be limited to 10% of the accepted contract amount. The rate of liquidated damages shall be 0.05% of agreed probable amount of contract per day of delay subject to a maximum

of 10% of agreed probable amount of contract. If the delay prolongs in excess of 200 days from the agreed date of completion as per the original agreement, the work will be terminated and balance work will be arranged to be completed at the risk and cost of the contractor.

3.5 RESOLUTION OF DISPUTES

3.5.1 SETTLEMENT OF DISPUTES

Any dispute(s) or difference(s) arising out of or in connection with the Contract shall, to the extent possible, be settled amicably between the parties. If any dispute or difference of any kind, whatsoever, shall arise between the Employer and the Contractor, arising out of the Contract for the performance of the Works whether during the progress of the Works or after its completion or whether before or after the termination, abandonment or breach of the Contract, it shall, in the first place, be referred to and settled by the Engineer, who, within a period of thirty (30) days after being requested by either party to do so, shall give written notice of his decision to the Employer and the Contractor.

**Sd/-
Executive Engineer**

SECTION - 4

SAFETY REQUIREMENTS

TABLE OF CLAUSES

Clause No.	Description
4.1	WORK AND SAFETY
4.2	SITE SAFETY
4.3	ACCIDENT REPORTS, RECORD & INVESTIGATION

4.1 WORK AND SAFETY:

Safety of Contractor's employees and the general public during the execution of contract work is the responsibility of the Contractor. The Contractor shall ensure safety of all the workmen, materials, plant and equipment belonging to him or to the others, working at the Site.

The bidder shall comply with all the statutory rules and regulations prevailing in the state including those related to safety of equipment and human beings.

The Contractor shall also provide for all safety notices and safety equipment required by the relevant legislations and deemed necessary by the KSEB. In addition the Contractor shall ensure that its employees are adequately trained in safety matters.

The Contractor shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need and as may be directed by KSEB who will also have the right to examine these safety equipment to determine their suitability, reliability, acceptability and adaptability.

In case of any accident of any sort, the Contractor shall be responsible for:

- extend all medical assistance to the injured
- make compensation for any damages claimed in respect of the accident,
- in charging compensation for loss of property intimating the Board and to all the authorities as per law.

The Contractor, in addition, shall indemnify the Board and cover the risk insurance as required.

The Contractor shall not continue if the work is being carried out in such a way as may cause accidents and endanger the safety of the persons and /or property.

The Contractor shall follow all the safety procedures stipulated by KSEB Ltd after award of Contract which will form part of the Contract.

4.2 SITE SAFETY

Adequate safety equipments shall be provided to all the workers, like hand gloves, helmet, full body safety belt, earth rod etc. Meggers & testers shall be provided in sufficient quantity.

Only persons having qualifications specified by KSEB Ltd. shall be engaged to carryout all types of electrical works.

In order to maintain safety, it is necessary to work to a framework of rules to suit the wide range of site situations. The effect of human factors, as well the physical environment in which work takes place should be considered in the application of these rules.

4.3 ACCIDENT REPORTS, RECORDS AND INVESTIGATION

All accidents, which result in injury or not shall be promptly reported to the Executive Engineer, Project Management Unit, Kasaragod.

All accidents to the public involving company personnel, equipment or property shall be reported promptly to the Executive Engineer, Project Management Unit, Kasaragod in writing by concerned Safety Officer of the Contractor.

Every accident should be investigated to determine the cause and what steps are needed to prevent a recurrence.

It shall be the responsibility of the Assistant Engineer in charge of the work to get complete details of the accident as soon as possible after it occurs.

All accidents, whether they result in personal injury or not, shall be promptly investigated by the Assistant Executive Engineer, Electrical Sub Division, Cherkala or his representative.

Sd/-

Executive Engineer

SECTION – 5

SPECIAL CONDITIONS OF CONTRACT

CLAUSE NO.	DESCRIPTION
5.1	GENERAL
5.2	REGULATION OF LOCAL AUTHORITIES & STATUTES
5.3	INSPECTION, TESTING & INSPECTION CERTIFICATES
5.4	DISCIPLINE OF WORKMEN
5.5	CONTRACTORS FIELD OPERATION
5.6	MAN-POWER REPORT
5.7	PROTECTION OF WORK
5.8	FACILITIES TO BE PROVIDED BY THE CONTRACTOR
5.9	INTEGRATION WITH EXISTING NETWORK
5.10	TRANSPORTATION
5.11	MATERIAL HANDLING AND STORAGE
5.12	PROJECT MANAGEMENT AND SUPERVISION
5.13	TESTING AND COMMISSIONING
5.14	QUANTITY VARIATION

SPECIAL CONDITIONS OF CONTRACT

5.1 GENERAL

5.1.1. The following special conditions shall be read in conjunction with the “General Conditions of Tender” given above and amendments/corrections thereto. If there are provisions in this special conditions of contract which are at variance with the provisions in the above mentioned documents, the provisions in these special conditions shall take precedence.

5.1.2. Bidders possessing valid PAN cards only shall be pre qualified.

5.1.3. The bidder shall carefully study in detail the Bid document especially the technical specifications before submission of the bid.

5.1.4. The tender documents should be submitted on line only, after digitally signing with a valid Digital Signature Certificate (DSC) availed from an approved Certifying Authority. By submitting digitally signed Bid documents, the Bidder accepts that he/she has clearly understood and agreed all the terms and conditions of this Tender.

5.1.5. Mentioning of price details at any place other than in the space designated in the BoQ shall disqualify the bid and the bid shall be summarily rejected.

5.1.6. The bidder is advised to submit the bids well before the last date and time specified to avoid any kind of last minute network issues, traffic congestion, etc. The Board shall not be responsible for any kind of such issues.

5.1.7. The bidder shall fill up all the data to be entered in the on line documents correctly.

5.1.8. No alterations shall be made in the bid form or schedule or the specifications annexed hereto, except to the extent of filling in the bid forms and schedules as indicated.

5.1.9. If the bidder has any doubt about any portion of the conditions of contract or

the specifications, he should get it clarified from the office of the Executive Engineer, Project Management Unit, Kasaragod in order that the doubt may be got cleared before the submission of the bid.

5.1.10. Offers sent through Fax /E-mail/courier/post will not be considered.

5.1.11. The bidder shall quote the lowest rate so as to avoid negotiation after opening of bid.

5.1.12. The bidders shall be governed by the general conditions of contract and schedule for the work and the special conditions mentioned herein. In case there are any contradictions or non-conformity between the two, the special conditions mentioned herein will prevail.

5.1.13. The work covered by this tender document shall be carried out in accordance with the conditions of contract attached with this part of the tender and as per the tender documents issued along with this. Wherever any condition in the instructions to bidders or general conditions of contract or technical specification embodied herein conflict with any part of the conditions of contract the later will prevail.

5.1.14. The following shall supplement the conditions already contained in the parts of these specifications and document shall govern the portion of the work of this contract to be performed at site.

5.1.15. All fitting accessories, apparatus or item of work which may not have been mentioned in these specifications, but which are essential for the completion and proper working of the network and fulfilment of the contract, shall also be provided/carried out by the contractor at no extra cost. He shall foresee, plan and quote covering all such items.

5.1.16. Prices shall be firm for a period of 180 days from the date of opening of bid. The prices for the purpose of firmness include insurance, taxes (Sales tax, work contract taxes, turnover tax etc.) duties and freight charges which are or become payable by the

contractor under existing or future laws and rules. Price schedule shall be given in the Price bid and shall be carefully filled to avoid any ambiguity. Fixed price offers shall only be accepted. Statutory levies shall be paid at actual. Any increase in statutory levy shall be paid by the contractor in case of delay in completion of supply/work after the scheduled period of completion. Necessary deductions will be made from the contractor's bill and deposited in the construction workers welfare fund as per the statutory orders of the Kerala State Government.

5.2 REGULATION OF LOCAL AUTHORITIES AND STATUTES

5.2.1 The Contractor shall comply with all the rules and regulations of local authorities during the performance of his field activities. He shall also comply with the Minimum Wages Act, 1948, the Payment of Wages Act, Contract Labour Regulation Abolition Act and the Workmen's Compensation Act (both of the State and Government of India) and the rules made hereunder in respect of any employee or workman employed or engaged by him.

5.2.2 All registration and statutory inspection fees, if any, in respect of his work pursuant to this Contract shall be to the account of the KSEB Ltd. Should any such inspection or registration need to be rearranged due to the fault of the Contractor, the additional fees to such inspection and/or registration shall be borne by the Contractor.

5.2.3 Necessary deduction will be made from the contractor's bill and deposited in the Construction Worker's Welfare Fund as per the statutory orders of the Kerala State Government.

5.3 INSPECTION, TESTING AND INSPECTION CERTIFICATES

5.3.1 The provisions of the clause entitled towards Inspection, Testing and Inspection Certificates under Technical Specification, etc. shall also be applicable to the erection portion of the Works. The Engineer shall have the right to re-inspect any work/ equipment though previously inspected and approved by him at the Contractor's works, before and after the same are erected/commissioned at Site. If by the above inspection, the engineer rejects any equipment/work, the Contractor shall make good for such rejections either by replacement or modification / repairs as may be necessary to the

satisfaction of the Engineer. Such replacements will also include the replacements or re-execution of such of those works/equipments of other Contractors and/or agencies, which might have got damaged or affected by the replacements or re-work done to the Contractor's work.

5.4 DISCIPLINE OF WORKMEN

The Contractor shall adhere to the disciplinary procedure set by the Engineer in respect of his employees and workmen at Site. The Engineer shall be at liberty to object to the presence of any representative or employee of the Contractor at the Site, if in the opinion of the Engineer such employee has behaved improperly or is incompetent or negligent or otherwise undesirable and then the Contractor shall remove such a person objected to and provide in his place a competent replacement.

5.5 CONTRACTORS FIELD OPERATION

5.5.1 The Contractor shall keep the Engineer informed in advance regarding his field activity plans and schedules for carrying out each part of the works. Any review of such plan or schedule or method of work by the Engineer shall not relieve the Contractor of any of responsibilities towards the field activities. Such reviews shall also not be considered as an assumption of any risk or liability by the Engineer or the KSEB Ltd. or any of his representatives and no claim of the Contractor will be entertained because of the failure or inefficiency of any such plan or schedule or method of work reviewed. The Contractor shall be solely responsible for the safety, adequacy and efficiency of plant and equipment and his erection methods.

5.5.2 The Contractor shall have the complete responsibility for the conditions of the work site including the safety of all persons employed by him and all the properties under his custody during the performance of the work. This requirement shall apply continuously till the completion of the Contract and shall not be limited to normal working hours. The construction review by the Engineer is not intended to include review of Contractor's safety measures in, or of near the Work-Site, and their adequacy or otherwise.

5.6 MANPOWER REPORT

5.6.1 The Contractor shall submit to the Engineer, a man-hour schedule for the contract period, detailing the man-hours scheduled for the work, skill-wise and area-wise.

5.6.2 The Contractor shall also submit to the Engineer, a manpower report detailing the number of persons scheduled to be employed, skill-wise and the areas of employment of such labour.

5.7 PROTECTION OF WORK

The Contractor shall have total responsibility for protecting his works till it is finally taken over by the Engineer. No claim will be entertained by the KSEB Ltd. or the Engineer for any damage or loss to the Contractor's works and the Contractor shall be responsible for complete restoration of the damaged works to original conditions to comply with the specification and drawings. Should any such damage to the Contractor's Works occur because of other party not being under his supervision or control, the Contractor shall make his claim directly with the party concerned.

5.8 FACILITIES TO BE PROVIDED BY THE CONTRACTOR

5.8.1 First-Aid : The Contractor shall provide necessary first-aid facilities for all his employees, representatives and workmen working at the Site. Enough number of the Contractor's personnel shall be trained in administering first-aid.

5.8.2 Cleanliness : The Contractor shall be responsible for keeping the entire area allotted to him clean and free from rubbish, debris etc. during the period of Contract. The Contractor shall employ enough number of special personnel to thoroughly clean his work-area. All such rubbish and scrap be stacked or disposed in a place to be identified by the Materials and stores shall be so arranged to permit easy cleaning equipment might drip oil and cause damage to protective cover of a flame resistant, oil proof the floor from such damage.

5.8.3 Protection to Life and Property and existing facilities: The Contractor is fully responsible for taking all possible safety precautions during for and actual performance of the works and for keeping the in a reasonable safe condition. The contractor shall life and property from damage or losses resulting from his construction operations and shall minimize the disturbance and inconvenience to the public.

5.9 INTEGRATION WITH EXISTING NETWORK

5.9.1 Wherever connections with the existing network/replacement of existing network/equipment are required, written permission from Engineer or his authorized field officer should be obtained.

5.10 TRANSPORTATION

5.10.1 All materials shall be packed adequately for protection against mechanical damage, including due to rough handling, during transport to its final destination.

5.10.2 The materials shall also be protected against damage due to ingress of moisture, moulds, insects or rodents. Items that include materials liable to be damaged by moisture shall be packed in hermetically sealed containers in which silica gel, or some other approved desiccant has been inserted.

5.11 MATERIAL HANDLING AND STORAGE

5.11.1 All materials and equipment required for this contract arriving at site shall be promptly received, unloaded, transported and stored in the storage spaces by the Contractor.

5.11.2 The consumables and other supplies likely to deteriorate due to storage must be thoroughly protected and stored in a suitable manner to prevent damage or deterioration in quality during storage.

5.11.3 The contractor shall arrange labour, vehicles, lifting tools to load and transport materials to work site. All the packing materials and protection devices used during transit and storage shall be removed before the equipments are erected.

5.11.4 The Contractor shall maintain an accurate and exhaustive record, detailing out the list of all equipment received by him for the purpose of erection and keep such record open for the inspection of the Engineer.

5.11.5 Materials shall not be stored for long periods along the routes of lines, roads or public places. The construction materials placed at the worksites shall not impede pedestrian or vehicular traffic. The contractor shall correct and make good any loss or damage to materials stored the worksites.

5.12 PROJECT MANAGEMENT AND SUPERVISION

The Contractor shall be responsible for the overall management and supervision of works. The contractor shall provide experienced, skilled, knowledgeable, and competent personnel during all the phases of the project.

5.13 TESTING AND COMMISSIONING

The scope includes testing and commissioning of all equipment, sub-systems and systems of the project and putting them into successful commercial operation. The scope shall include but not limited to the requirements given elsewhere in the specification.

5.14 QUANTITY VARIATION

KSEB Ltd. reserves the right to increase or decrease the quantity of materials and/or works up to 25% of the contract value. The quantities of individual item may vary beyond the limit above.

**Sd/-
Executive Engineer**

SECTION - 6

TECHNICAL SPECIFICATIONS

The following technical specification shall govern the items of work covered under this contract. For works not covered by these specifications, the I.S. Specifications for the respective work shall apply and the contractor is bound to execute, such items in conformity with these specifications as though such standard specifications form part of this contract specifications.

SCOPE OF WORK:

Kerala State Electricity Board Ltd invites e-tenders under competitive bidding from eligible bidders for the work of “CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER AT BENDRODU-THALABAIL UNDER ELECTRICAL SECTION, MULLERIYA”

The work involves Fitting and erecting HT PSC Pole, HT A Poles, HT Stay, HT Fly stay, HT Strut including digging and backfilling the pits, Fitting AB switch, Providing Coil Earth and Pipe Earth, Transportation of poles, Stringing of 11kV lines using ACSR Raccoon and ABC conductor, providing concrete muffing to A poles, erection of DTR, providing fencing and yard metalling, transferring, conversion of LT lines, dismantling LT poles etc.

The following technical specification shall govern the items of work covered under this contract. For works and supply of materials not covered by these specifications, the I.S. Specifications for the respective work or materials shall apply and the contractor is bound to execute such items in conformity with these specifications as though such standard specifications form part of this contract specifications.

General procedure to carry out the work:

Pit marking:

The contractor shall peg mark the pits for poles and stays along the line route in consultation with the Engineer -in -charge. Rate for pits in different classes of soil has been incorporated in the BOQ.

Excavation of pits:

Pits shall be excavated in such a manner that the planting depth is 1.5m for poles upto 9m long and $\frac{1}{6}$ th of length of poles for poles of length more than 9m. In rocky surfaces depth of pit excavation need to be only 1m at a diameter 1.3 times bottom width of the pole. Pits thus excavated in rocky areas shall be filled up with plain concrete of mix 1: 2: 4 with pedestal 1.5 m above ground. Stays for the pole can has to be fixed in pits of depth $\frac{2}{3}$ length of stay rod. In rocky areas stays are to be fixed in pits of depth 1m with plain concrete (1:2:4) upto ground level.

Pole erection and providing stays:

After the excavation of pits are completed, the poles to be erected may be brought to the pit location. Then the pole may be erected inside the pit. The verticality of poles are to be ensured and the alignment of poles shall be judged using suitable methods. Having satisfied that the verticality and alignment are all right, earth filling or concreting is to be done.

Erection of DP (double pole structures) at angle location:

Generally, for angles of deviation more than 20 Deg. and, in straight portion at intervals not exceeding one kilometre, double pole structures of spacing 3.0 m. may be erected. The pits are to be excavated and DPs are to be erected as per the bisection of the angle of deviation.

Coil Earthing

All poles are to be coil earthed. Coil earthing shall be done using No.8 SWG GI wire of length 10 meter compressed into a coil of 450 mm length and diameter of 50 mm and buried 1500 mm deep. The free end of the coil earth shall be well jointed to the GI wire from the top of the pole and loose GI wire shall be well dressed along the pole. Any excess length and shall be laid underground from the bottom of the pole upto earth coil.

Pipe Earthing

At D.P locations and transformer stations, pits are to be excavated to a depth of 2.5m; the steel and metal parts, Lightning arresters, transformer neutral terminal etc. are to. be earthed by pipe earning. The top edge of the pipe shall be at least 200mm below the ground level. The GI earthing wire

shall be fixed not less than 300 mm deep from the ground level . 5 Nos. of pipe earthing has to be provided at transformer stations and 2 nos. at each DP point and distance between any two pipe earths shall be not less than 1.5m.

Tools and Plant to be arranged by the contractor:

All equipment like cranes, chain pulley blocks, digging equipment etc. shall be arranged by the contractor himself. KSEBL will not supply nor give on hire any of these equipment.

Warning tapes/ traffic cones:

Attention catching warning and security tapes are to be provided at the work site for the safety of pedestrians and vehicles. The warning board "MEN AT WORK- KSEB" shall be prominently displayed at the starting and end points a day's planned work. Excavated pits shall be closed before sunset of the particular day Construction standards: All the works shall conform the relevant Indian standards and as per the construction standard drawing published by the Rural Electrification Corporation (REC).

TRANSFORMER INSTALLATION

The scope of transformer installation work covers the following in general, as per requirement.

- Installing, Testing and commissioning of 3 phase, 11 KV/433 volts Distribution Transformer of 100 KVA capacity on DP structure of 9 m PSC pole with AB switches, DO fuses, Lightning arrestors, cross arms, top brackets, pin insulator with pins, disc insulator with hard ware fittings, stay sets etc as required.
- Providing 5 Nos pipe earthing as per REC standards and giving all HT / LT/ earth connections for Transformers, Fencing, yard metalling, providing lock and key etc.
- Installation of static energy meter with LCD display along with street light timer relay, contactor, overload and short circuit protection in a suitable box as per specifications including fixing of box on the pole with suitable GI clamps, nuts and bolts, and providing LT connections to the meter from phase line and from timer to street main using LT cable of suitable size and taking through 2 inch diameter rigid

PVC/GI pipe and fixing to the pole firmly including earthing of the box.

- Installation of SMC DTR box with Meter including provision for fixing as per approved drawing and giving connection.
- Giving bolted jumper connections from LT side of distribution transformer through LT Distribution Box with incomer protection and bus bar arrangement and two circuit 200 amps porcelain fuse units using XLPE single core cables of appropriate size, properly crimped with cable crimping socket and supported by LT spacers to LT overhead lines as per approved drawing and giving connection.

Erection of transformer

- The erected transformer's HT bushings should have a minimum ground clearance of 2.6m.
- In DP mounted transformer stations, the transformer should be placed on two cross arms of ISMC100 of 3.0m long.
- The transformer should be tied to the structure using 2 nos of 3.0m, ISA35.35 angles, which are supported at each pole using 2 nos of 0.5m, ISA 35.35 pieces, as illustrated in the drawing.
- The equipments such as AB switch, LA, DO fuse etc. are to be mounted on cross arms, as mentioned in their respective notes and as per the drawings.
- The transformer DP should not support any LT line.
- The outgoing feeders should be taken from a distribution box provided, as per the description mentioned. The incoming conductor to the bus, as well as the bus conductor should be insulated using coloured sleeves (Red, Yellow and Blue for phases and Black for neutral).
- The HT lines should have sufficient phase identification. It is suggested that Red, Yellow or Blue paints should be applied to appropriate phase of equipments like AB switch, LA, DO fuse etc. This practice should be adopted in locations of line AB switches.
- The erected transformer should be steady and stable in all respects. There should not be any chance of falling down due to a small disturbance.
- The LA should be placed at a minimum distance of 1.3m, maximum being 1.5m, below the AB switch and 1.3m above the D O fuse.
- Group control AB switches shall be provided for multiple transformer installations.

- Fencing is compulsory for each transformer station.
- The yard of each transformer should be provided with metal, as per the specifications.
- Name board of the transformer should be exhibited.
- The board should be prepared according to the specimen drawing.

Electrical connections

The unarmoured XLPE cables shall be used for connecting LT supply from transformer bushing to the LT Circuit Breaker in the Distribution Box and for taking outgoing feeders from Distribution box to Fuse Box and from Fuse Box to the overhead lines. The cables shall be clamped to the support without damaging the insulation. A loop arrangement shall be made at the connecting end and laying of cables shall be in such a way that rain water does not enter. The HT side connections shall be made with ACSR conductor., The jumpers taken out from the HT line should be joined using Wedge Connectors/ PG clamps. The LA should be connected in between AB switch and DO fuse. The connector of LA should be suitable for ACSR Raccoon and should be rated for a short circuit current of 10kA. Cables glands of ISI marks shall be used for all the cable entries in distribution box. The PVC cable unarmoured, LT cable from LT bushings will first enter into LTCT / meter box and from outgoing of meter box it shall be terminated on the MCCB / Isolator (as per specifications), thereafter will be connected to LT feeders. The contractor shall properly dress all the LT cables emanating form distribution box. The contractor shall carry out all jointing works. The cable ends shall be connected using adequate capacity aluminium lugs (as per specifications) and shall be tightened using bimetallic brasses. Connection from distribution Transformer to OH line will done be using single core XLPE LT of suitable size cable through 200A Kit Kat Fuse Units. Connection from distribution Transformer to LT AB Cable _ For extension of supply from Distribution box to overhead AB Cable the arrangement shall be as described below: _ Bearer wire of LT AB cable shall be anchored through dead end clamp arrangement on master pole which is at a distance of 5meter from transformer DP. _ Extra length of continuous cable along with messenger / bearer wire shall be properly dressed and taken in to MCCB, using bimetallic clamp of appropriate size / quality. _ Connection from cable & messenger / bearer to bus bar of pole distribution box should be done with 120 sq mm XLPE wire (having specifications as per ISS) using Insulated piercing connectors and Earthing connectors.

Earthing arrangements

- Each transformer station should be provided with 5 (five) numbers of pipe earthing, done as per its standard. The following points should be considered for earthing a transformer station.
- The lightning arrestor should be separately earthed. This earth conductor should not be in contact with the structure/ any other metal part of the DP structure. While making connections, care should be taken to avoid sharp bends.
- The neutral of the transformer should be double earthed, to two independent earth pits, using GI wire of size SWG No.6.
- The transformer body, the metal parts of the structure, the handle of AB switch and the yard fencing should be connected to two earth electrodes using GI wire of size SWG No.6.
- The earth resistivity achieved shall be less than the stipulated value as per the relevant codes of practice and shall be measured and recorded as per approved erection and commissioning procedures.

Fencing

- The height of the fencing should be 1.8 m above the ground level.
- The fencing should be provided minimum clearance of 1 m from the nearing equipment installed. Fencing should be provided all around the transformer station.
- If any wall or other structure becomes a part of the fencing, it should also be extended at a height of 1.8 m.
- The supports should be provided at a distance of 2.5 m.
- The fencing should be earthed using GI wire of SWG No.8.
- A gate of minimum 1.5 m width should be used. Preferably, double door is suitable.
- The supporting structure should be erected with concrete foundation; the depth of burial should be 0.6 m from ground.
- A curb wall 15 cm above ground and 15cm below ground should be provided below the fencing.

Yard Metalling

Cleaning and levelling of transformer yard/RMU, spreading 40 mm broken stone in yard for a thickness of 10 cm above bed of 10 cm thick 6 mm broken stone, after constructing a curb wall of height 20cm above ground and 10cm below level including cost of all materials and charges for

conveying, spreading, consolidating etc.. Before laying the metal all cabling/earthing work should be completed.

Running Out of the ACSR Conductors

The contractor shall be entirely responsible for any damage to the pole or conductors during stringing. The conductors shall be run out of the drums from the top in order to avoid damage to conductor. A suitable braking device shall be provided to avoid damaging, loose running out and kinking of the conductors. Care shall be taken to ensure that the conductor does not touch and rub against the ground or objects, which could scratch or damage the strands. The sequence of running out shall be from the top to down i.e. the top conductor shall be run out first, followed in succession by the side conductors. Unbalanced loads on poles shall be avoided as far as possible. Wherever applicable, inner phase off-line conductors shall be strung before the stringing of the outer phases is taken up. When lines being erected run parallel to existing energized power lines, the Contractor shall take adequate safety precautions to protect personnel from the potentially dangerous voltage build up due to electromagnetic and electrostatic coupling in the pulling wire, conductors and earth wire during stringing operations. The Contractor shall also take adequate safety precautions to protect personnel from potentially dangerous voltage build up due to distant electrical storms or any other reason.

Stringing of ACSR Conductor

The stringing of the conductor shall be done by the standard stringing method. Conductors shall not be allowed to hang in the stringing blocks for more than 96 hours before being pulled to the specified sag. Derricks/ scaffoldings or other equivalent methods shall be used to ensure that normal services are not interrupted and any property is not damaged during stringing operations for roads, telecommunication lines, power lines and railway lines. However, shut-down shall be obtained when working at crossings of overhead power lines. The contractor shall make specific request for the same to the owner

Stringing Of Aerial Bunched Cable (ABC) Fixing Of Suspension & Tension/ Dead End Fittings To The Poles.

The suspension clamp is to be hung on eye hook/ suspension hook, which is fixed to the pole at a minimum distance of 0.15M from top end of

the pole. The messenger wire of bunched cable resting on a pulley is separated from the cable by separating wedges and inserted in the conductor groove of the suspension clamp. The bolt is tightened to a torque of 20 N after which the pulley and wedges are to be removed. The cable is tied to the messenger wire with nylon tie on both sides of clamps. Pole clamps 50 x 8 mm flat shall be used. Eye hook of 20mm diameter MS rod is to be used. The pole clamp shall be made to suite the pole width and the same shall be installed as per REC Construction Standard.

1. FITTINGS & ACCESSORIES

The following hardware fittings and accessories shall be used to install, erect & join the aerial bunched cable.

a) Suspension Clamp with SS strap & Buckle – The Contractor shall install the suspension clamp with SS strap & Buckle. This shall be used to attach the AB cable on the pole by means of a deadend clamp in terminal poles and for attaching a suspension clamp suitable for holding AB cables in straight lines and angle up to 90 Deg.

b) Suspension fittings & the corresponding eye hook shall be as per REC Construction Standard No. E – 34. The eye hooks shall be made from minimum 20mm dia MS rods with eye on one end and the other end being suitably flattened with two holes for M16 bolt & nut to fix with the back clamps made from minimum 50x8mm flats

c) Dead End fittings shall be bolted type as per REC Construction Standard No. E-35 & are to be anchored with the pole with similar arrangement of eye hook & back clamp. In this case, the back clamp shall have two Nos. of holes on both sides for M16 bolts. One side of the clamp shall be used for holding the eye hook with dead end clamp and the other side shall be used for anchoring the Stay.

d) Nylon Tie- The nylon ties shall be used for tying the conductors with the messenger wire to prevent the phase conductors from chatting against suspension clamp. The nylon tie is made of weather resistant black nylon.

2 INSTALLATION OF CABLE

The contractor shall be fully responsible for all activities related to installation of AB cable. His/her responsibilities consists of handling, pulling, stringing & jointing of the cable and connecting transformers and tapping lines as per direction of the Engineer-in-charge.

3 HANDLING OF AB CABLE

The contractor shall observe following precautions while handling the AB Cable. The cable drums must be stored and transported in an upright position. While loading/unloading, the drums shall not be thrown from transport vehicles. Cable contact with sharp articles shall be avoided. ☐ In order to prevent damage to the insulation, the cable shall not be dragged on the ground. Pulleys shall be used for this purpose. In order to prevent strands from spreading, always cut the cable with a cutter. Use nylon ties or electrical tape to prevent the cable from spreading away from messenger wire after the cutting. Staple the end of the cable on to the drum in order to prevent loosening. Do not remove the protective boards from the cable drum before the cable is pulled off the drum. While moving the drum by rolling it on ground, always roll the drum in the direction indicated by the arrow on the flange. When pulling the cable, the spinning direction must be opposite. Do not store the drums on wet soil, sandy or humid places. Store the accessories in good order for quick easy and correct handling.

4 PULLING THE CABLE

The principle is to pull the cable under mechanical tension so that contact with the ground or any other obstacles is avoided. The cable drum should be perfectly in alignment with line to be strung and fixed about 15-20M from the holding the first pulley. Open the cover of the drum to check and ensure that the insulation is not damaged. The pulling which is sent up to the cable drum is about 15-20 M from the pole holding to the last pulley. The pulleys are directly hung to such hook on the poles. The pulley tandem is to be used on angle poles if the line is deviating more than 60°. Pull the guiding rope through all the pulleys. Normal care shall be taken to assume a smooth passage of whole cable through the pulleys, especially in the first pole and on angle poles. One worker should act as brakeman at the cable drum so that the cable is not loosened during the pulling. One worker should follow the cable going through the pulleys and stop the pulling if anything goes wrong.

5 STRINGING OPERATIONS.

The contractor shall follow one of the following methods for stringing.

5.1. Sag Method

Fix a dead end clamp on the neutral messenger wire at the pole. The messenger shall be bent behind the clamp to ensure sufficient friction

between the messenger and the clamp in the initial stays during stringing. Bind the conductor together beside the dead end clamp using a nylon tie. Hand the clamp on the hook at the end pole. Rewind simultaneously the slack cable length on the cable drum. Attach the come along on the neutral messenger wire at the first pole of the line. Tighten the cable by the shackle or the winch when required sag is obtained. Hand the dead end clamp on the hook and install it on the neutral messenger. Remove the come along. Bind the conductors together on the messenger wire using a nylon tie. Check the length of the cable needed and cut it at an appropriate point.

6 JOINTING OF CABLES

Jointing of cable shall be in accordance with clause 12.3.3 of IS 1255:1993 and manufacturers special instructions. This joining is to be done by skilled personnel.

7 CABLE DAMAGE AND REPAIRS:

If the cable is damaged for whatever reasons, it shall be brought to the notice of the Engineer in charge and shall not be used without his approval. No joint or splice shall be made in spans crossings over main roads, small rivers or in tension spans. Not more than one joint in the cable shall be allowed in one span. The stringing rate include rates for paving, stringing, clamping, jointing, tensioning and fitting of all necessary accessories. Manufacturer approved jointers shall be deputed for jointing works. Approval for jointers shall be availed from the agreement authority.

8 EARTHING OF ABCs:

1. Metallic Screen Earthing (Copper screen Earthing)

To avoid the continuous circulating current, the losses and the issues of external earth fault current passing through the screen, earthing on the metallic screen shall be done only at one point. In single point earthing, the voltage at the unearthed point increases with the length of the metallic screen involved in the stretch wire whereas the fault current gets reduced with increase in length of the screen. Hence copper screen shall be kept discontinuous at the end of every 2 KM and single point earthing (Pipe Earthing) shall be given at farther end

from the source. The unearthed point of the screen shall be properly insulated. In case of shorter length of execution, copper screen shall be earthed (single point earthing) at farther end. For screen earthing pre-insulated metallic lugs with copper bolts and nuts shall be used at ABC end and AB cable bits shall be used for connecting to the pipe earth.

2. Messenger Earthing

The messenger shall be pipe earthed at both ends and at the end of every Drum limited to a maximum interval of 500 m. The messenger shall be continuous even if the metallic screen is kept discontinuous at a joint. At Drum-Drum joints both side insulated messengers shall be brought down and connected to the Pipe Earth. GI wires are not recommended for messenger earthing.

**Sd/-
Executive Engineer**

SECTION - 7

GENERAL CONSTRUCTIONAL PRACTICES

7.1 CONSTRUCTION MANAGEMENT

7.1.1 Time is the essence of the contract and the contractor shall be responsible for performance of his works in accordance with the specified construction schedule. If at any time, the contractor is falling behind the schedule for reasons attributable to him, he shall take necessary action to make good for such delays by increasing his work force or by working overtime or otherwise to accelerate the progress of the work and to comply with schedule and shall communicate such actions in writing to the KSEB Ltd., satisfying that his action will compensate for the delay. The contractor shall not be allowed any extra compensation for such action.

7.1.2 The workmanship shall be in accordance with the best engineering practices to ensure satisfactory performance throughout the service life. If at any stage during the execution of the contract, it is observed that the erected equipment(s) do not meet the above minimum clearances as required under existing laws and statutes, the contractor shall immediately proceed to correct the discrepancy at his risks and cost.

7.1.3 The specifications are intended for general description of work, quality and workmanship. The specifications are not however exhaustive to cover minute details and the work shall be executed according to relevant latest Indian Standards/IRC Specifications. In the absence of the above, the work shall be executed according to the best prevailing practices in the trade, recommendations of relevant American or British Standards or to the instructions of Executive Engineer, Project Management Unit, Kasaragod. The Bidder is expected to get himself clarified on any doubts about the specifications etc. before bidding, and the discussions recorded in writing in respect of interpretation of any portion of this document.

7.1.4 The nature of the work is such that the installation work shall be carried out promptly and in a minimum time to avoid undue interruption in supply to the existing consumers. The Contractor shall engage sufficient number of workers and supervisory staff to

ensure that the installation work including the Commissioning of the Facility is done with minimum interruption time.

7.1.5 The contractor shall take all necessary precautions to protect all the existing equipments, structures, facilities & buildings etc. from damage. In case any damage occurs due to the activities of the Contractor on account of negligence, ignorance, accidental or any other reason whatsoever, the damage shall be made good by the Contractor at his own cost to the satisfaction of the Engineer. The Contractor shall also take all necessary from the equipment & facilities of KSEB Ltd.

7.1.6 During the progress of work, the Engineer will exercise supervision of the work to ensure that the technical provisions of the contract are being followed and the work is being executed accurately and properly. However, such supervision shall in no way relieve the Contractor of the responsibility for executing the work in accordance with the specifications.

7.1.7 The Contractor shall do complete coordination with all local & statutory agencies for execution of complete works.

7.1.8 The Contractor shall obtain approvals & clearances and right of way from all agencies involved.

7.1.9 All lines shall generally be routed through public land / along the road.

7.1.10 The Contractor shall appoint a Safety Officer before start of construction activities and the safety set-up chart shall be prepared and displayed at a conspicuous place.

7.1.11 Contractor shall follow statutory regulations stipulated in Electricity Act 2003 with all amendments till date, CEA (Measures relating to Safety and Electric Supply) Regulations, 2023, CEA (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) Regulations, 2011 and also comply with all the statutory rules and regulations prevailing in the State of Kerala including those related to safety of equipment and human beings.

7.1.12 The Contractor shall be responsible for transportation to site of all the materials to be provided as well as proper storage and preservation of the same at his own cost, till such time the erected line is taken over by the KSEB Ltd.

7.1.13 The Contractor shall have to engage their skilled personnel to render Technical Assistance & Guidance to take care of the material guarantee throughout the erection programme.

7.1.14 KSEB Ltd. will not be responsible for any accident that occur at any stage of the work nor will be responsible for any payment of compensation in case of any mishap, and if any legal dispute arises, then Contractor will have to resolve it, at his risk and cost.

7.2.1 Clean up:

The Contractor shall ensure that all work sites shall be free of all manner debris resulting from the construction activity.

7.2.2 All crating, conductor reels, packaging materials, conductor scraps, and other miscellaneous items are removed from the workplace. All holes resulting from removal of facilities shall be filled. If trees or brush have been cut or trimmed, all cuttings shall be removed. The worksites shall be left in clean natural conditions.

7.2.3 Site clean-up shall be an integral part of the Provisional Acceptance and no line section shall be provisionally accepted unless all clean up been accomplished.

7.3 Tree Cutting and Trimming:

Any tree cutting or tree trimming shall be accomplished by the Contractor in coordination with Assistant Executive Engineer, Electrical Sub Division, Cherkala. All cutting shall be removed by the Contractor with disposition of cutting as specified by KSEB Ltd.

7.4 Interruptions to Existing Service:

The Contractor shall arrange for required interruptions of existing service in coordination with KSEB Ltd. and such interruptions shall be minimum.

7.5 Monitoring & supervision

7.5.1 Physical verification will be carried out by KSEB Ltd. at works are reported have been completed by the Contractor. Defects, delays and other discrepancies will be intimated to the Contractor as per procedure accepted by KSEB Ltd.

7.5.2 KSEB Ltd. Engineers may inspect rectification work carried out by the turnkey contractor.

7.6 Adherence to Indian electricity regulations

The Contractor shall follow Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022,

Central Electricity Authority (Safety requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) Regulations, 2022

Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023, and other existing laws, rules and statutes with regard to construction, erection and commissioning of electrical installations.

7.7 Earthing

Objectives of Earthing

The basics of safe grounding are:

To design and construct system that is capable to carry current under normal and fault conditions to ground.

The earth path should be capable of handling magnitude and duration of current as per the over-current protection of the system without any fire or flash or explosion.

Persons in the vicinity of earthed structures and installations shall not be exposed to the dangers of electrical shocks.

**Sd/-
Executive Engineer**

SECTION 8. BIDDING PROCEDURE

8.1. Introduction

The bid is aimed at selection of contractors having sufficient financial resources, relevant experience and expertise in the CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER satisfactorily with respect to specified quality delivery, Board's payment terms etc.

8.2. Submission of bids

2.1. Bidders shall upload scanned copies of all the required documents to prove their technical capability along with the tender forms.

2.2. Bids shall be uploaded in single online cover designated as follows.

Cover 1 –Bid Agreement and duly filled up tender documents. The following documents shall be enclosed in cover 1.

- Scanned copy of online payment chalan as a proof of remittance of cost of tender document and EMD.
- Proof of UDYAM Registration, if exemption availed.
- Scanned copy of bounden agreement executed in Stamp Paper worth Rs.200/- as per Annexure I of the bid document Part I. Original agreement shall be submitted to this Office.
- Tender document, Tender Conditions and Technical Specifications.
- Scanned copies of PAN Card, Power of Attorney in given format (Annexure II), relevant photographs, drawings and other documents/formats required for proving eligibility of the bidder. (Please upload these as a single pdf document).
- Price Bid - BoQ (Part III)

The original document of bid agreement of general conditions of contract of "CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER AT BENDRODU-THALABAIL UNDER ELECTRICAL SECTION, MULLERIYA in Stamp paper worth Rs200/- each shall be sent in single envelope superscribed as E-Tender No **19/24-25/EE/PMU/KSD dt 25-07-2024** to tender inviting authority by post/courier or can be submitted in person.

8.3. Opening of Bids

The bid shall be opened online at the office of the Executive Engineer, Project Management Unit, KSEB Ltd, Kasaragod on the date and time mentioned above in the presence of bidders/their representatives who are present. If the tender opening date happens to be a holiday, the tender opening process will be carried out on the next working day. In case it is not possible to open the tender on the specified time and date due to any other reason, the revised time and date will be published on the website etenders.kerala.gov.in

8.3.1. Cover no. 1 shall be opened first on the date mentioned in the tender notice.

8.3.2. The eligibility of bidders shall be decided on the following grounds.

- Whether the bidder remitted EMD and tender document fee.
- Whether the bidder satisfies the conditions specified for the technical capability.

8.3.3. All the bidders who satisfy all the above conditions shall be considered eligible for the opening of their price bids. The selection so made shall be final and no appeal shall lie against it. The Board reserves the right to disqualify any bidder without assigning any reason whatsoever.

8.3.4. After evaluation of the documents to prove eligibility, the price bids of the bidders who are qualified will be opened.

- 8.3.5. The bidders are required to give complete information as asked. All forms shall be fully filled in. Incomplete tenders are liable to be rejected without assigning any reason thereof.
- 8.3.6. All amendment(s) and corrigendum(s) shall be published on the website www.etenders.kerala.gov.in and KSEB Limited shall not be responsible for bidder's negligence in checking the website regularly for any updates on this tender.
- 8.3.7. Acceptance of the bid rests with the Kerala State Electricity Board Limited, which is not bound to accept the lowest or any other bid. The Board will not be responsible for any expenses or losses that may be incurred by the bidder in the preparation of the bid.
- 8.3.8. The information furnished or the replies to the questions should be complete in all respects. In case the information or the reply is 'NIL' OR 'NOT APPLICABLE' etc it should be mentioned accordingly.
- 8.3.9. There is no provision for correction of bids once submitted online. However, revised bids can be submitted by the bidder, in case of corrections, till the last date & time of bid submission and the most recent/latest bid submitted before the stipulated date & time of bid submission shall only be considered by www.etenders.kerala.gov.in website for further processing.
- 8.3.10. The bidder shall produce the original copies of documents, in physical format, if asked by KSEB Limited for verification.
- 8.3.11. The questionnaire and formats maybe used without any modifications. If found necessary to suit the purpose for which the tender is invited, any additional information shall be furnished in separate sheets in pdf.

Sd/-

**Executive Engineer
Project Management Unit, KSEBL
KASARAGOD**

SECTION – 9
ANNEXURES

ANNEXURE-I

TENDER AGREEMENT

(Specimen form of Agreement to be signed and forwarded along with his tender by each tenderer on Kerala Government Stamp Paper worth Rs. 200/-)

Article of agreement executed on this
Day of BETWEEN the Executive Engineer, Project Management Unit, KSE Board Ltd, Kasaragod (hereinafter referred to as "The Board") on the one part and Sri (Hereinafter referred to as the "Bounden") of the other part.

WHEREAS in response to the Notification No dated the Bounden has submitted to the Board specified therein subject to the terms and conditions contained in the said tender documents.

WHEREAS the Bounden has also deposited with the Board a sum of / furnished a demand draft for a sum of Rs. as Earnest Money for execution of an agreement undertaking the due fulfilment of the contract in case his tender is accepted by the Board.

NOW THESE PRESENT WITNESS AND it is hereby mutually agreed as follows:

1. In case the tender submitted by the Bounden is accepted by the Board and the contract for supply/ works is awarded to the Bounden, the Bounden shall within fifteen days of acceptance of his tender execute an agreement with the Board incorporating all the terms and conditions under which Board accepts his tender.

2. In case the Bounden fails to execute the agreement as aforesaid Incorporating the terms and conditions governing the contract, the Board shall have power and authority to recover from the Bounden any loss or damages caused to the Board by breach as may be determined by the Board, appropriating the earnest money deposited by the Bounden and if the earnest money is found to be inadequate, the deficit amount may be recovered from the Bounden and his properties movable and immovable in the manner hereinafter contained. The bounden will have no claim or right over the moneys and /or securities and EMD appropriated by Board and these moneys and/ securities shall belong to the Board.

3. All sums found due to the Board under or by virtue of this agreement shall be recoverable from the Bounden and his properties movable and immovable,

under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of Land Revenue and also in such other manner as the Board may deem fit.

4. In _____ witness _____ whereof
Sri (name and
designation) for and on behalf of the Kerala State Electricity Board
Ltd. and Sri.....
.....
..... the Bounden have hereunto set their hands the day and
year shown against their respective signatures.

Signed by Sri.....

(Date)

CONTRACTOR

In the presence of witnesses:

1.

2.

Signed by Sri.....

(Date)

EXECUTIVE ENGINEER

In the presence of witnesses:

1.

2.

**ANNEXURE II
POWER OF ATTORNEY**

(to be furnished in Government Stamp Paper worth INR 200/- and notarized)

Know all men by these presents,
we,

.....(name of firm and address of the registered office) do hereby constitute, nominate, appoint and authorize Mr./Ms/ Son/daughter/wife and presently residing at presently employed with us and holding the position of

as our true and lawful attorney (hereinafter referred to as the "Authorised Representative") to do in our name " **CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER AT BENDRODU- THALABAIL UNDER ELECTRICAL SECTION, MULLERIYA** including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/responses to the KSEB Ltd., representing us in all matters before the KSEB Ltd., signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the KSEB Ltd. in all matters in connection with or relating to or arising out of our proposal for the said project and/or upon award thereof to us till the entering into of the agreement with the KSEB Ltd.

AND we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorised Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorised Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF
WE,
..... THE
ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON
THIS DAY OF

For

(Signature, Name, Designation and Address)

Witnesses:

1.

2.

Attested by a Notary Public

ANNEXURE III

LETTER OF ACCEPATANCE

SAMPLE FORM

No.

To

Name and address of the contractor

Dear Sirs,

This is to notify you that your bid dated..... for the execution of works **“CONSTRUCTION OF 11KV LINE AND INSTALLATION OF TRANSFORMER AT BENDRODU- THALABAIL UNDER ELECTRICAL SECTION, MULLERIYA** contract price Rs.....(amount in figures and words) as corrected modified in accordance with the instructions to bidders is hereby accepted by us. You are advised to submit the security deposit and sign a contract agreement within 15 days from the date of this letter.

You are hereby instructed to proceed with the construction of the works in accordance with contract documents.

Yours faithfully,

Executive Engineer

ANNEXURE IV

NOMINATION

I do hereby nominate and authorize Sri/Smt..... son/daughter
of
aged..... years house
of
Village.....Taluk..... district residing
atto receive all or any
sums at to receive all or any sums found due to
me under the terms of the contract. (Agreement No and details of
contract)
..... in the event of my death before the amount
has become payable or having become payable but has not been paid.

Signature of Tenderer

Name and Address

Signed in presence of witness:

Signature, Name & Address

Signature, Name & Address

ANNEXURE V
Bidder's Experience

The bidder shall furnish here a list of similar jobs executed by him to whom a reference may be by KSEB Ltd. in case KSEB Ltd. considers such a reference necessary.

No	Name and description of work	Value of Work	Period of construction and date of completion	Client	Persons to whom reference may be made

Name & Address of the Bidder

Place

Date