



KERALA ELECTRICAL & ALLIED ENGINEERING CO.LTD
(A GOVERNMENT OF KERALA UNDERTAKING)
KUNDARA.P.O, KOLLAM

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TENDER FOR THE WORK OF “Supply (excluding LED Lights), Erection and Commissioning of 2Nos. of 10Mtr High mast with 6 Nos. 150W LED Lights and 8 Nos. 8Mtr Mini mast lighting system with 5 Nos. 150W LED Lights at various destinations in Vaniyankulam Grama Panchayath in Shornur Assembly constituency”

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| PERIOD OF SALE OF TENDER DOCUMENT | : | Please refer e-procurement portal |
| TENDER REFERENCE | : | KRO/ BDC/168/2019 dated 09.01.2019 |
| LAST DATE FOR SALE OF TENDER DOCUMENT | : | Please refer e-procurement portal |
| LAST DATE AND TIME FOR RECEIPT OF TENDERS | : | Please refer e-procurement portal |
| TIME AND DATE OF OPENING OF COVER ONE OF TENDERS | : | Please refer e-procurement portal |
| PLACE OF OPENING OF COVER ONE OF TENDERS | : | Office of the Manager(Business Development), KEL - R.O., Housing Board Building, Panampilly Nagar - KOCHI 36 |
| TIME AND DATE OF OPENING OF COVER TWO OF TENDERS | : | Please refer e-procurement portal |
| PLACE OF OPENING OF COVER TWO OF TENDERS | : | Please refer e-procurement portal |
| ADDRESS FOR COMMUNICATION | : | Office of the Manager(Business Development), KEL - R.O., Housing Board Building, Panampilly Nagar - KOCHI 36 |

Contents

| Section No. | Description |
|--------------------|---------------------------------|
| 1. | INVITATION FOR TENDERS (IFT) |
| 2. | INSTRUCTIONS TO TENDERERS (ITT) |
| 3. | QUALIFICATION INFORMATION |
| 4. | CONDITIONS OF CONTRACT (CC) |
| 5. | BILL OF QUANTITIES |

E-Government Procurement (e-GP) NOTICE INVITING TENDER

TENDER NO: KRO/ BDC/168/2019

09.01.2019

1. The Manager (Materials), Kerala Electrical & Allied Engg. Co. Ltd. (KEL), Kundara, Kollam invites **item rate e-tender** for the work of **Supply (excluding LED Lights), Erection and Commissioning of 2Nos. of 10Mtr High mast with 6 Nos. 150W LED Lights and 8 Nos. 8Mtr Mini mast lighting system with 5 Nos. 150W LED Lights at various destinations in Vaniyankulam Grama Panchayath in Shornur Assembly constituency** from eligible Manufacturers/Electrical contractors of appropriate class registered in KEL as per PWD norms. Partnership firms shall furnish full names of all partners in the tender. It may, however, be signed in the name of firm by one of the partners or by a duly authorized representative, followed by the name and designation of the person signing.
2. **Tender documents** may be downloaded from Government of Kerala e-Procurement website <https://www.etenders.kerala.gov.in>. MSMEs are exempted from paying cost of tender documents.
3. Tenderers should possess **qualifications** as prescribed in Section 3 of NIT.
4. Tenders must be accompanied by **Earnest Money Deposit** which will be paid online as per Clause13. EMD is exempted for MSMEs.
5. Tenders must be **electronically submitted** (on-line through internet) within the date and time published in e-procurement portal. Tenders will be opened at prescribed time and date in the e-procurement portal, at the Office of the Manager (Sub Contract). Tenderers shall also submit all the documents as per Part-I in original duly signed and sealed on or before the last date and time of receipt of tender in sealed cover at the office of Manager (Sub Contract)
6. The tenderer is requested to **submit queries**, if any, in writing or by cable to reach the employer not later than 20/08/2019. The tenderer has to **visit the site** and assess the actual site condition, nature of work and quantum of work before quoting the work.
7. The rate quoted should be including GST and including all statutory levies, taxes, duties etc as applicable. The rate of GST and other levies shall be indicated separately in the covering letter.
8. **Payment:** Being PMC work payment shall be released against receipt of same from client.
9. Other details can be seen in the tender documents.

| | |
|---------------------------|--|
| Name of work | Supply (excluding LED Lights), Erection and Commissioning of 2Nos. of 10Mtr High mast with 6 Nos. 150W LED Lights and 8 Nos. 8Mtr Mini mast lighting system with 5 Nos. 150W LED Lights at various destinations in Vaniyankulam Grama Panchayath in Shornur Assembly constituency |
| Approximate value of work | Rs. 1479000.00 |
| Cost of Tender Form | Rs. 2714.00 |
| Earnest Money Deposit | Rs. 14790.00 |
| Completion time: | Within 45 days from the date of work order. |

Manager (Subcontract)

TENDER NO: KRO/ BDC/168/2019

09.01.2019

SECTION 2: INSTRUCTIONS TO TENDERERS (ITT)

Table of Clauses

A. General

1. Scope of Tender
2. Eligible Tenderers
3. General Instruction
4. One Tender per Tenderer
5. Cost of Tendering
6. Site Visit

B. Tender Documents

7. Content of Tender documents
8. Clarification of Tender Document
9. Amendment of Tender documents

C. Preparation of Tenders

10. Documents comprising the Tender
11. Tender prices
12. Tender validity
13. Earnest money deposit
14. Format and signing of Tender

D. Submission of Tenders

15. Sealing and marking of Tenders
16. Deadline for submission of Tenders
17. Late Tenders
18. Modification and Withdrawal of Tenders

E. Tender opening and evaluation

19. Opening of First Cover of all Tenders and evaluation to determine qualified Tenderers
20. Opening of Second Cover Tenders of qualified Tenders and evaluation
21. Process to be confidential
22. Clarification of Tenders
23. Correction of errors
24. Evaluation and comparison of Tenders

F. Award of contract

25. Award criteria
26. Employer's right to accept any Tender and to reject any or all Tenders
27. Notification of award and signing of Agreement
28. Security deposit
29. Payment and Security
30. Corrupt or Fraudulent Practices

A. General

1. Scope of Tender

- 1.1 The Manager (Materials) Kerala Electrical & Allied Engg. Co.Ltd, Kundara.P.O, Kollam invites tenders following Two Cover tender procedure, from eligible Tenderers, for the construction of works (as defined in these documents and referred to as "the works") detailed in the Table given in the Invitation for Tenders (IFT). The Tenderers may submit tenders for all of the works detailed in the table given in IFT.

2. Eligible Tenderers

- 2.1 Tenderers shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of Kerala.
- 2.2 Tenders from Joint ventures are not acceptable.
- 2.3 All Tenderers shall provide the requested information accurately and in sufficient detail in Section 3: Qualification information.
- 2.4 Sub-contractors' experience and resources shall not be taken into account in determining the Tenderer's compliance with the qualifying criteria.
- 2.5 Tenderers who meet the above specified minimum qualifying criteria will only be qualified.
- 2.6 Even though the Tenderers meet the above criteria, they are subject to be disqualified if they have:
- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
 - record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
 - participated in the previous Tender for the same work and had quoted unreasonably high tender prices and could not furnish rational justification.

3. General Instruction

- 3.1. The original documents should be produced for verification at any stage of tender process as and when sought for, failing which the bids are liable for disqualification.
- 3.2. Any arbitrary clause is not applicable to the above works.
- 3.3. The item rates shall be clearly and legibly typed both in figures and words in English only.
- 3.4. Standard deductions as per the prevailing norms/laws will be deducted from the work bills during payment.
- 3.5. Corrigendum/modification/correction, if any, will be published only in the website.
- 3.6. Conditional tenders, incomplete tenders, tenders without EMD, tenders not properly uploaded and late submission of tenders shall be rejected.
- 3.7. If any of the dates mentioned above is declared as holiday, the next working day will hold good without any change in the timings indicated.

- 3.8. The Manager(Subcontract) reserves the right to accept/reject any or all tenders without assigning any reasons.
- 3.9. Period for the completion of the project, Ref : IFT.
- 3.10. Defects liability period including routine maintenance of the work is 12 months from the date of issue of satisfactory completion certificate by the Engineer-in-charge of the work.
- 3.11. The validity of the tender rates is not less than 120 days after the deadline date for tender submission specified in Clause 16
- 3.12. In the case of the death of the contractor after executing the agreement / commencement of the work, his legal heir, if is an eligible registered contractor and is willing can execute and compete the work at the accepted tender rates irrespective of the cost of the work.

4. One Tender per Tenderer:

- 4.1 Each tenderer shall submit only one tender. A tenderer who submits or participates in more than one Tender (other than as a sub-contractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Tenderer's participation to be disqualified.

5. Cost of Tendering:

- 5.1 The tenderer shall bear all costs associated with the preparation and submission of his tender, and the Employer will in no case be responsible and liable for those costs.

6. Site visit:

- 6.1 The Tenderer at his own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Tender and entering into a contract for construction of the Works. The cost of visiting the Site shall be at the Tenderer's own expense.

B. Tender documents

7. Content of Tender documents

- 7.1 The set of tender documents to submitted as per clause 3

8. Clarification of Tender Documents

- 8.1 A prospective tenderer requiring any clarification is requested to submit any questions in writing or by cable to reach the employer as per IFT

9. Amendment of Tender documents

- 9.1 Before the deadline for submission of tenders, the Employer may modify the tender documents by issuing addenda.
- 9.2 Any addendum thus issued shall be part of the tender documents and shall be communicated through procurement portal in writing or by cable to all the purchasers of the tender documents.

- 9.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their tenders, the Employer shall extend as necessary the deadline for submission of tenders, by date corrigendum published in e-portal.

C. Preparation of Tenders

10. Documents comprising the Tender

- 10.1 The tender submitted by the Tenderer shall be in two parts and shall contain the documents as follows:

10.1.1 First Part:

- (a) Tender fee and Earnest Money Deposit (EMD) shall be paid online as per e-procurement procedure. Earnest Money Deposit will be exempted against submission of MSME certificate.
- (b) Qualification Information as per formats given in Section 3;
- (c) Covering letter in prescribed format- Annexure 1 & Annexure 2

Second Part:

- (a) Priced Bill of Quantities online through e-procurement portal, no hardcopy of commercials should be attached or disclosed.

And any other materials required be completing and submitting by Tenderers in accordance with these instructions. The documents listed under Sections 3, 4, 6 and 9 shall be filled in without exception.

11. Tender prices

- 11.1 The contract shall be for the whole works as described in Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Tenderer.
- 11.2 The Tenderer shall fill in rates in figures for all items of the Works described in the Bill of Quantities.
- 11.3 All duties, taxes, and other levies payable by the contractor under the contract, or for any other cause, shall be included in the rates, prices and total Tender Price submitted by the Tenderer.

12. Tender validity

- 12.1 Tenders shall remain valid for a period as per clause 3.11. If the bidder submit tender valid for a shorter period shall be rejected by the Employer as non-responsive.
- 12.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the Tenderers may extend the period of validity for a specified additional period. The request and the Tenderers' responses shall be made in writing or by cable. A Tenderer may refuse the request without forfeiting his earnest money deposit. A Tenderer agreeing to the request will not be required or permitted to modify his tender, but will be required to extend the validity of his earnest money deposit for a period of the extension, and in compliance with Clause 13 in all respects.

13. Earnest money deposit

The tenderer shall furnish, as part of his tender, earnest money deposit as shown in the table of the IFT for this particular work. The Earnest money Deposit shall be paid as per the procedure mentioned in e-procurement portal.

The supplier/contractor's bid will be evaluated only on confirmation of receipt of the payment (EMD).

EMD amount will have to be submitted by the supplier/contractor taking into account the following conditions:

13.1 Any tender not accompanied by an acceptable earnest money deposit and not secured as indicated in Sub-Clauses 13 above shall be rejected by the Employer as non-responsive.

13.2 The earnest money deposit of unsuccessful Tenderers will be returned as per the e-payment refund procedure.

13.3 The earnest money deposit of the successful Tenderer will be discharged when the Tenderer has signed the Agreement and furnished the required Performance Security.

13.6 The earnest money deposit may be forfeited:

- (a) if the Tenderer withdraws the Tender after tender opening during the period of tender validity;
- (b) if the Tenderer does not accept the correction of the Tender Price, pursuant to Clause 24; or
- (c) in the case of a successful Tenderer, if the Tenderer fails within the specified time limit to sign the Agreement if the Employer insists

14. Format and signing of Tender

Tenderer shall submit the Bid electronically before the submission date and time published in e-procurement portal.

D. Submission of Tenders

15. Sealing and marking of tenders

Tenderer shall submit the Bid electronically before the submission date and time published. Tenderers shall also submit all the documents as per Part-I in original duly signed and sealed along with EMD & Tender fee details on or before the last date and time of receipt of tender in sealed cover at the office of The Manager(Materials), KEL Kundara.

16. Deadline for submission of the Tenders

16.1 Tenders must be submitted online in eProcurement Portal on or before the submission date and time published in eprocurement portal.

16.2 The Employer may extend the deadline for submission of tenders by issuing an amendment in accordance with Clause 9, in which case all rights and obligations of the Employer and the Tenderers previously subject to the original deadline will then be subject to the new deadline.

17. Late Tenders

17.1 In online e procurement system, you shall not be able to submit the bid after the bid submission time and date as the icon or the task in the e procurement portal will not be available.

18. Modification and Withdrawal of Tenders

18.1 Tender has all the time to modify and correct or upload any relevant document in the portal till Bid submission date and time, as published in the e-procurement portal.

E. Tender opening and evaluation

19. Opening of First Cover /First Part of all Tenders and evaluation to determine qualified Tenderers:

19.1 The Employer will open the First Cover/ First part of all the Tenders received (except those received late or withdrawn), including modifications for First Cover made pursuant to Clause 18, on the date and the place specified in Clause 16. In the event of the specified date of Tender opening being declared a holiday for the Employer, the Tenders will be opened at the appointed time and location on the next working day.

19.2 The Employer will evaluate and determine whether each tender (a) meets the eligibility criteria defined in ITT Clause 2; (b) is accompanied by the required earnest money deposit as per stipulations in ITT Clause and (c) meets the minimum qualification criteria stipulated in ITT Clause 2. The Employer will draw out a list of qualified Tenderers.

20. Opening of Second Cover of qualified Tenderers and evaluation:

20.1 The Employer will open the Second Covers of Qualified Tenderers at the appointed time and date specified in Clause 16. In the event of the specified date of Second Cover opening being declared a holiday for the Employer, the Second Covers will be opened at the appointed time and location on the next working day.

21. Process to be confidential

21.1 Information relating to the examination, clarification, evaluation, and comparison of Tenders and recommendations for the award of a contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to influence the Employer's processing of Tenders or award decisions may result in the rejection of his Tender.

22 Clarification of Tenders

22.1 To assist in the examination, evaluation, and comparison of Tenders, the Employer may, at his discretion, ask any Tenderer for clarification of his Tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Tender shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Tenders in accordance with Clause 24.

- 22.2 Any effort by the Tenderer to influence the Employer in the Employer's Tender evaluation, Tender comparison or contract award decisions may result in the rejection of the Tenderers' Tender.

23. Correction of errors

- 23.1 Tenders determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
- (a) Where there is a discrepancy between the rates in figures and in words, the lower of the two will govern and
 - (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.
- 23.2 The amount stated in the Tender will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Tenderer, shall be considered as binding upon the Tenderer. If the Tenderer does not accept the corrected amount the Tender will be rejected, and the earnest money deposit may be forfeited in accordance with Sub-Clause 13.6 (b).

24. Evaluation and comparison of Tenders

- 24.1 In evaluating the Tenders, the Employer will determine for each Tender the evaluated Tender Price by adjusting the Tender Price as follows:
- (a) Making any correction for errors pursuant to Clause 23; and
 - (b) Making appropriate adjustments to reflect discounts or other price modifications offered.
- 24.2 If the tender of the successful tenderer is seriously unbalanced in relation to the Employer's estimate of the cost of the work to be performed under the contract, the Employer may require the Tenderer to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in Clause 29 be increased at the expense of the successful Tenderer to a level sufficient to protect the Employer against financial loss in the event of default of the successful under the contract.
- 24.3 If the tender of the successful tenderer is seriously unbalanced in relation to the Employer's estimate of the cost of the work, Employer may conduct negotiation with the lowest bidders.

F. Award of Contract

25. Award criteria

- 25.1 Subject to Clause 26, the Employer will award the Contract to the Tenderer whose Tender has been determined to be substantially responsive to the Tender documents and who has offered the lowest evaluated Tender Price, provided that such Tenderer has been determined to be (a) eligible in accordance with the provisions of Clause 2, and (b) qualified in accordance with the provisions of Clause 3.

26. Employer's right to accept any Tender and to reject any or all Tenders

- 26.1 Notwithstanding Clause 25, the Employer reserves the right to accept or reject any Tender, and to cancel the Tender process and reject all Tenders, at any time prior to the award of Contract, without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the Employer's action.

27. Notification of award and signing of Agreement

- 27.1 The Tenderer whose Tender has been accepted will be notified of the award by the Employer prior to expiration of the Tender validity period by cable, e-mail confirmed by registered letter. This letter (hereinafter and in the *Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 27.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of Security deposit in accordance with the provisions of Clause 34 of section 4.
- 27.3 Deleted
- 27.4 Deleted
28. Deleted
29. Deleted

30. Corrupt or Fraudulent practices

- 30.1 The Employer requires that the Tenderers/Suppliers/Contractors, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy,
- (a) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
 - (b) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract.

SECTION 3: QUALIFICATION INFORMATION

(To be submitted in cover -1 along with EMD)

The Bidder shall have the following requirements and the details may be furnished by the Bidder in the technical Bid in cover No.I.

1.0 The Manager (Materials), Kerala Electrical & Allied Engg. Co. Ltd. (KEL), Kundara, Kollam - 691501 invites **item rate e-tender** for the work of **Supply (excluding LED Lights), Erection and Commissioning of 2Nos. of 10Mtr High mast with 6 Nos. 150W LED Lights and 8 Nos. 8Mtr Mini mast lighting system with 5 Nos. 150W LED Lights at various destinations in Vaniyankulam Grama Panchayath in Shornur Assembly constituency** from eligible Electrical contractors of appropriate class as per PWD norms. A Valid license / registration with KSEB/Kerala Irrigation Dept./Kerala- PWD / CPWD/Development Authority / Corporation /Municipality /any other PSU /Central /State –Govt. Organisation, etc, and registration with KEL.

1.1 a) If the Bidder is an Engineer /Technical hand, details of his qualifications.
b) List of other Engineer/Technical/Skilled workers presently employed by the Bidder.
c) The list of Plant & Machinery the Bidder proposes to deploy for the work (Owned or hired)

1.2 The Bidder should have executed **similar type of work** for value not less than 60% of the quantity of the BOQ in single work order within last Three Financial Years.

1.3 The **details of work executed** shall be furnished with the value of work and completion period (certificates may be enclosed to support the statements).

1.4 Financial

- a) Bankers Name and account No.
- b) Value of orders at hand and the liabilities remaining.
- c) Details litigation if any with the clients of the bidder for the last 5 years.

1.5 **Copies of original documents shall be submitted along with the bid and the originals of the same shall be furnished on demand for verification and evaluation of the bid.**

Manager (Materials)

SECTION 4: GENERAL CONDITIONS OF CONTRACT
Table of Contents

- A. General**
 - 1. Definitions
 - 2. Interpretation
 - 3. Law governing contract
 - 4. Employers decisions
 - 5. Delegation
 - 6. Communications
 - 7. Other Contractors
 - 8. Personnel
 - 9. Employer's and Contractor's risks
 - 10 Contractor's risks
 - 11. Insurance
 - 12. Site Investigation Report
 - 13. Safety
 - 14. Discoveries
 - 15. Possession of the Site
 - 16. Access to the Site
 - 17. Instructions
 - 18. Procedure for resolution of disputes

- B. Time Control**
 - 19. Program
 - 20. Extension of the Intended Completion Date
 - 21. Delays ordered by the Employer

- C. Quality Control**
 - 22. Identifying defects
 - 23. Tests
 - 24. Correction of defects
 - 25. Uncorrected defects

- D. Cost Control**
 - 26 Bill of Quantities (BOQ)
 - 27 Variations
 - 28. Payment for Variations
 - 29. Submission of bills for payment
 - 30 Payments
 - 31. Tax
 - 32 Retention
 - 33. Liquidated damages
 - 34. Securities
 - 35. Cost of repairs

E Finishing of Contract

- 36. Completion
- 37. Taking Over
- 38. Final account
- 39. Termination
- 40. Payment upon termination
- 41. Property
- 42. Release from performance
- 43. Litigation

A. General

1. Definitions

- 1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Bold letters are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Tender.

Compensation events are those defined in Clause 38 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Employer

The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.2 below.

The **Contract Data** defines the documents and other information which comprise the Contract.

The **Contractor** is a person or corporate body whose Tender to carry out the Works has been accepted by the Employer.

The **Contractor's Tender** is the completed Tender document submitted by the Contractor to the Employer.

The **Contract price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; **months** are calendar months.

A **Defect** is any part of the Works not completed in accordance with the Contract.

The **Defects liability period** is the period named in the Contract Data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Employer by issuing an extension of time.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is any integral part of the Works which is to have a mechanical, electrical, electronic or chemical or biological function.

The **Site** is the area defined as such in the Contract Data.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Employer.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the Site.

A **Variation** is an instruction given by the Employer which varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

2. Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Employer will provide instructions clarifying queries about the Conditions of Contract.

2.2 The documents forming the Contract shall be interpreted in the following order of priority:

- (1) Agreement
- (2) Letter of Acceptance.
- (3) Conditions of Contract
- (4) Specifications as prevailing IS
- (5) Drawings (If any)
- (6) Bill of quantities and
- (7) Any other document listed in the Contract Data as forming part of the

Contract.

3. Law governing contract

3.1 The law governing the Contract is the Laws of India supplanted by the Kerala Local Acts.

4. Employer's decisions

4.1 Except where otherwise specifically stated, the Employer will decide contractual matters between the Employer and the Contractor.

5. Delegation

5.1 The Employer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

7. Other Contractors

7.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer.

8. Personnel

a. The Contractor shall employ the technical personnel (of number and qualifications) as may be stipulated by client from time to time during the execution of the work. The technical staff so employed shall be available at site as may be stipulated by the Employer.

b. If the Employer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

9. Employer's and Contractor's risks

9.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

10. Contractor's risks

10.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

11. Insurance:

11.1 Policies and certificates for insurance shall be delivered by the Contractor to the Employer for his approval before the Start Date. All such insurance shall provide for compensation to be payable to rectify the loss or damage incurred. All payments received from insurers relating to loss or damage shall be held jointly by the Parties and used for the repair of the loss or damage or as compensation for loss or damage that is not to be repaired.

11.2 If the Contractor fails to effect or keep in force any of the insurances referred to in the previous sub-clauses or fails to provide satisfactory evidence, policies or receipts, the Employer may without prejudice to any other right or remedy, effect insurance for the cover relevant to such default and pay the premiums due and recover the same as a deduction from any other monies due to the Contractor. If no payment is due, the payment of the premiums shall be a debt due.

11.3 Alterations to the terms of an insurance shall not be made without the approval of the Employer.

11.4 Both Parties shall comply with any conditions of the insurance policies.

12. The Works to be completed by the Intended Completion Date

12.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the program submitted by the Contractor, as updated with the approval of the Employer, and complete them by the Intended Completion Date.

13. Safety

13.1 The Contractor shall be responsible for the safety of all activities on the Site.

14. Discoveries

14.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Employer of such discoveries and carry out the Employer's instructions for dealing with them.

15. Possession of the Site

15.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

16. Access to the Site

16.1 The Contractor shall allow the Employer and any person authorized by the Employer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

17. Instructions

17.1 The Contractor shall carry out all instructions of the Employer which comply with the applicable laws where the Site is located.

18. Procedure for resolution of Disputes:

18.1 If the Contractor is not satisfied with the decision taken by the Employer, the dispute shall be referred by either party to Arbitration within 30 days of the notification of the Employer's decision.

18.2 If neither party refers the dispute to Arbitration within the above 30 days, the Employer's decision will be final and binding.

18.3 The Arbitration shall be conducted in accordance with the arbitration procedure stated in the Special Conditions of Contract.

B. Time Control

19. Program

19.1 Within the time stated in the Contract Data the Contractor shall submit to the Employer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works.

19.2 The Employer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Employer again at any time. A revised Program is to show the effect of Variations and Compensation Events.

20. Extension of the Intended Completion Date

- 20.1 The Employer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date.
- 20.2 The Employer shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Employer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information.

21. Delays ordered by the Employer

- 21.1 The Employer may instruct the Contractor to delay the start or progress of any activity within the Works.

C. Quality Control

22. Identifying defects

- 22.1 The Employer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Employer may instruct the Contractor to search for a Defect and to uncover and test any work that the Employer considers may have a Defect

23. Tests

- 23.1 If the Employer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

24. Correction of defects

- 24.1 The Employer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period as per clause 3.10 of ITT, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 24.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Employer's notice.

25. Uncorrected defects

- 26.1 If the Contractor has not corrected a Defect within the time specified in the Employer's notice, the Employer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

D. Cost Control

26. Bill of Quantities (BOQ)

- 26.1 The BOQ shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.
- 26.2 The BOQ is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the BOQ for each item
- 26.3 The tenderer should visit the site before quoting the rate

27. Variations

- 27.1 The Employer shall have power to order the Contractor to do any or all of the following as considered necessary or advisable during the progress of the work by him
- (a) Increase or decrease of any item of work included in the Bill of Quantities (BOQ) to be executed in same rate as per order;
 - (b) Omit any item of work;
 - (c) Change the character or quality or kind of any item of work;
 - (d) Change the levels, lines, positions and dimensions of any part of the work;
 - (e) Execute additional items of work of any kind necessary for the completion of the works; and
 - (f) Change in any specified sequence, methods or timing of construction of any part of the work.
- 27.2 The Contractor shall be bound to carry out the work in accordance with any instructions in this connection, which may be given to him in writing by the Employer and such alteration shall not vitiate or invalidate the contract.
- 27.3 Variations shall not be made by the Contractor without an order in writing by the Employer, provided that no order in writing shall be required for increase or decrease in the quantity of an item appearing in the BOQ so long as the work executed conforms to the approved drawings.
- 27.4 The Contractor shall promptly request in writing to the Employer to confirm verbal orders and the officer issuing oral instructions shall confirm it in writing within 30 days, failing which the work shall be carried out as through there is no variation. In case variation is approved it shall be accompanied by BOQ, failing which the contractor shall be responsible for deviation if any. Further, approval of Govt. has to be obtained for the variation exceeding 5% of contract price.

28. Payments for Variations

28.1, 28.2 Deleted

- 28.3 If there is no rate for the additional, substituted or altered item of the work in the BOQ, efforts would be made to derive the rates from those given in the BOQ or the Schedule of Rates (applicable for the area of the work and current at the time of award of contract) and if found feasible the payment would be made at the derived rate for the item plus or minus the overall percentage of the original tendered rates over the current Schedule of Rates prevalent at the time of award of contract
- 28.4 If the rates for additional, substituted or altered item of work cannot be determined either as 28.3 above, the Contractor shall be requested to submit his quotation for the items supported by analysis of the rate or rates claimed, within 7 days.
- 28.5 If the Contractor's quotation is determined unreasonable, the Employer may order the Variation and make a change to the Contract Price which shall be based on Employer's own forecast of the effects of the Variation on the Contractor's costs.
- 28.6 If the Employer decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 28.7 Under no circumstances the Contractor shall suspend the work on the plea of non-settlement of rates for items falling under this Clause.

29. Submission of bills for payment

- 29.1 The Contractor shall submit to the Employer monthly bills of the value of the work completed less the cumulative amount paid previously. Each running bill of the work will be passed for payment only after the satisfactory report from Site Engineer.

30. Payment:

- (a) Contractor is eligible for payment against the work completed for value not less than 25 % of the order value
- (b) TDS will be made from the contractor's bill.
- (c) Rate quoted should be as directed in BOQ
- (d) The contractor should be registered with GST
- (e) Workmen compensation / Insurance has to be arranged by the contractor

32. Retention:

10% of the 100% value of work done will be recovered towards retention money from each running advance bills (R.A bills) payable to the contractor and this amount will be released after satisfactory completion and handing over of work

33. Liquidated damages

- 33.1 The Contractor shall pay liquidated damages to the Employer at the rate of 0.1% per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the Contract Data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.
- 33.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment of bill.

34. Securities:

Security Deposit @ 2.5 % of the total value of the contract should be remitted before executing agreement or deducted from contractors first bill as per discretion of the employer and will be released after defect liability period. Defect liability period including routine maintenance of the work is as per clause 3.10 of ITT.

35. Cost of Repairs:

- 35.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

36. Completion

- 36.1 The completion time of the project is as per FIT.
- 36.2 The Contractor shall request the Employer to issue a Certificate of Completion of the Works and the Employer will do so upon deciding that the Work is completed.

37. Taking over

- 37.1 The Employer shall take over the Site and the Works within seven days of issuing a certificate of Completion from the client.

38. Final account

- 38.1 The Contractor shall supply to the Employer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Employer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 90 days of receiving the Contractor's account if it is correct and complete. If it is not, the Employer shall issue within 90 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Employer shall decide on the amount payable to the Contractor and make payment within 60 days of receiving the Contractor's revised account.

39. Termination

- 39.1 The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 39.2 Fundamental breaches of Contract include, but shall not be limited to the following:
- (a) The Contractor stops work for 45 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Employer;
 - (b) The Contractor becomes bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - (c) the Employer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Employer;
- 39.3 The company reserves the right to terminate the contract and carryout the work at the cost and risk of the contractor unless and otherwise the contractor make satisfactory progress as per the completion schedule for the work within 7 days of serving notice in this regard.

40. Payment upon Termination

- 40.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Employer shall prepare bill for the value of the work done less advance payments received up to the date of the bill, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.
- 40.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Employer shall prepare bill for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract, and less taxes due to be deducted at source as per applicable law and make payment accordingly.

41. Property

- 41.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's default.

42. Release from performance

- 42.1 If the Contract is frustrated by any event entirely outside the control of either the Employer or the Contractor the Employer shall certify that the Contract has been

frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made

43. Litigation

All disputes arising on this contract shall be subject to the jurisdiction of court at Kochi.

SECTION 5: BILL OF QUANTITIES

Quote rate in the E-procurement portal.

Annexure-1

FROM

(Full name and address of the tenderer)

M/s.....
.....
.....
.....

To

The Manager (Materials),
Kerala Electrical & Allied Engineering Company
Kundara,
Kollam.

Subject: - Offer against Tender Notice No. **KRO/ BDC/168/2019** **dated 09.01.2019**

Sir,

We hereby submit our offer in full compliance with terms & conditions of the attached tender. The tender is being submitted in two separate and sealed envelopes marked Part-I & Part-II.

(Signature of Tenderer)

Seal

Annexure 2

GENERAL PARTICULARS OF TENDERER

| Sl.No: | Particulars | Details |
|--------|--|---------|
| 1. | Name of Tenderer/Firm | |
| 2. | Postal Address | |
| 3. | E-mail address for communication | |
| 4. | Telephone, Fax No. | |
| 5. | Name, designation & contact number of the representative of the tenderer to whom all references shall be made. | |
| 6. | Nature of the firm (Individual/ Partnership/ Pvt. Ltd /Public Ltd. Co. /Public Sector etc.). The Association of various firms like Consortium/Joint Venture/ Special Purpose Vehicle etc. is not allowed to participate in this tender. Please Attach attested copy of Registration/ | |
| 7. | Amount & particulars of the earnest money deposited | |
| 8. | Average Annual Turn over in last three years | |
| 9. | GST Registration no. (Copy of the Registration Certificates) | |
| 10. | PAN Card No: (Enclose copy of PAN card) | |
| 11. | Has the tenderer /firm ever been debarred by any agency like Govt. sector, Public sector or private sector | |
| 12. | Any other information attached by the tenderer (Details and Annexure no. where its enclosed) | |

(Signature of tenderer with Seal)

Special Terms and Conditions for Tendering

- 1 LED lights required for the work will be supplied by the company.
- 2 Transportation from the point of delivery, handling, Installation, testing and commissioning of the same are to be carried out by the contractor. Service support, if required, shall also be provided by the contractor in association with the LED light supplier.
- 3 The bidder must have successfully completed similar works of LED projects costing not less than or equal to an amount of 7 lakhs in a single work order.
- 4 The conditions for executing contract works in LSGD/ Government will be applicable for this work also.
- 5 Companies participating in tender should have 24 * 7 service team.
- 6 Companies participating in tender should have mentioned their current financial status and financial status of last three years.
- 7 Companies participating in tender should have minimum three years of experience in the field of Installation of LED Lights.
- 8 Companies participating in tender should invest capital for completing the project.

Terms and Conditions for e-tendering:

- 1) The bidders should have necessary portal enrolment (with their own digital signature certificate).
- 2) Tender can be submitted online on **etenders.kerala.gov.in**
- 3) The offers shall be submitted in two Bid systems ie: Technical Bid and Price Bid separately.
- 4) First Cover is Technical Bid and shall contain Technical Literature, Catalogue, Commercial terms and scanned copy of RTGS/ONLINE payment Challan. Second cover contains Price Bid ie: BOQ.
- 5) The payment of EMD & Tender Cost will be through E-payment only. Procedure for making e-payment is attached.
- 6) The rate quoted should have validity for 60 days. It should be quoted as per format given in the e-tender portal.
- 7) The GST should be indicated separately
- 8) The prices shall be on **FOR SITE** basis.

- 9) Incomplete tenders are liable for rejection without assigning any reason thereof.
- 10) **Payment terms:**
 - (a) 100% on realization of payment from customer.
- 11) EMD will be forfeited if the bidder fails to supply items as per contract terms.
- 12) Tender Fee and EMD payment should be through e-payment. Procedure for making e-payment is attached.
- 13) KEL reserves the right to reject any or all tenders without assigning any reasons thereof.
- 14) KEL reserves the right to split the tendered quantities to various bidders to meet our delivery commitments.
- 15) Warranty – 3 years from the date of installation.
- 16) Bank Guarantee – 36 months for 5% of the total order value is to be submitted along with final bill. If not, 5% payment will be with held.

TERMS AND CONDITIONS OF CONTRACT

1. General Terms & Conditions of contract

- 1.1 The work shall be carried out strictly as per the instructions of the company /ISI specifications and to the entire satisfaction of the concerned authorities.
- 1.2 The rate quoted shall be inclusive of cost of materials, labour and hire charges, incidental expenses, site sheds, construction aides, loading, unloading, transportation, cost of all materials required and other contingences (unless and otherwise specified in the schedule for work).
- 1.3 Electric power required for the execution of work and necessary connections as per statutory rules are to be arranged by the contractor.
- 1.4 All the arrangement for water required for the execution of work has to be arranged by the contractor.
- 1.5 The rate quoted shall remain firm throughout the period of contract. Revision of rates or any other additional claims will not be entertained in any case.
- 1.6 Only superior quality of materials shall be used for the work for all materials, fittings and accessories to be used.
- 1.7 The contractor should make satisfactory progress in accordance with the schedule of completion and the entire work should be completed within the completion period mentioned in the contract.

- 1.8 The contractor and the workman should strictly observe the security rules and statutory rules, labour laws, etc. in force.
- 1.9 In case of any dispute the decision taken by the company will be final.
- 1.10 Penalty at the rate 1 % per week subjected to maximum 5% of total contract value will be deducted from the amount due to the contractor for any delay beyond the agreed completion period.
- 1.11 The contractor is responsible for maintaining specified quality in the supply of materials and workmanship. Necessary documents such as manufacturer's test certificate, guarantees, etc. should be provided for the below noted items for verification and the contractors claim/bills will be admitted only on production of those documents wherever required.
 - (a) Hot Dip Galvanizing
 - (b) Stainless Steel Wire Rope
 - (c) Light Output (Lumens)
 - (d) Surge Protection and IP-66 Protection
- 1.12 All materials supplied by contractor for the work should be open for inspection of quantity & quality and the contractor should render necessary facilities for proper inspection and testing at his cost. KEL reserves the right either to accept or to reject the materials supplied by the contractor on the quality inspection grounds.
- 1.13 KEL reserves the right to reject or accept any offer without assigning any reasons thereof to anyone.
- 1.14 Handing over and taken over: The contractor should complete the work entrusted to him under this contract in all respect before handing over. A completion certificate along with required test certificates/guarantee cards of fittings and components used for the work should be produced for taking over of the work by purchaser (KEL).
- 1.15 Termination of contract: The Company reserves the right to terminate the contract and carryout the work at the cost and risk of the contractor unless and otherwise the contractor makes satisfactory progress as per the completion schedule of the work within 7 days of serving notice in this regard.
- 1.16 Payment terms:
 - a) 100% on realization of payment from customer.
 - b) EMD will be forfeited if the bidder fails to supply items as per contract terms.
 - c) KEL reserves the right to split the tendered quantities to various bidders to meet our delivery commitments.
 - d) Suppliers who have credit with KEL are exempted from paying EMD.
 - e) Warranty – 36 months from date of installation.
 - f) Bank guarantee – 36 months bank guarantee for 5% of the total order value is to be submitted along with final bill. If not, 5% payment will be withheld.

The contractor may furnish the tax clearance certificate prior to settlement of final bill.

- 1.17 The contractor is not eligible for any compensation for stoppage of work at any stage due to Governmental actions, natural calamities, climatic conditions, inspection and testing requirements, non-availability of materials, Government bans, etc.
- 1.18 Litigation: All disputes arising on this contract shall be subject to the jurisdiction of court at Ernakulam.

Manager (Materials)

Annexure3

BILL OF MATERIALS FOR SUPPLY AND INSTALLATION OF 10 METER HIGH MAST WITH 6 NOS OF 150W LED FLOOD LIGHT FITTINGS WITH THREE YEARS WARRANTY

| SL NO. | DESCRIPTION | QTY | UNIT |
|--------|--|------|-------|
| 1 | Supply 10 Mtr High Mast system with its all accessories .Mast shaft shall be in single/two section, Galvanisation of single hot dipped internally and externally polygonal sheet thickness not less than 3mm suitable for wind velocity as per IS 875, Head frame assembly 2 point suspension system with steel wire rope 5mm dia (7/19 construction) and winching system arrangement conforming to IS with galvanised lantern carriage suitable for accommodating 4 nos LED flood light luminaires symmetrically and its control gear box and lightning spike. Supply and conveyance foundation bolt made of special steel along with nuts, washers, anchor plates and templates, Supply, erection, testing and commissioning of LED aviation obstruction light, Supply and erection control box consists of : 32A, TPN, 25A TPMCB, 25A 4P 30mA RCCB , single dial 24hour timer with charging facility and contactor for automatic operation, suitable size connection cable from control panel to flood light fittings. Construction of suitable shallow foundation with 1:2:4 Concrete for the high mast considering the safe soil bearing capacity at site as 10 T/Sqmtr at 2 Meter depth with reinforcement for RCC works, bend tied and placed in position (plain grill requiring bend cold) using for steel including form work for reinforced cement concrete and excavation of soil including neat banking. Erection and commissioning of the above high mast with the help of crane/derrick and other suitable equipment and wiring of luminaries with wiring materials | 1.00 | each |
| 2 | Transportation from the point of delivery, handling, Installation, testing and commissioning of 150W LED Flood Light supplied by the company (LT Make) and its service & maintenance for 3years. Service support shall be provided by the contractor in association with the LED light supplier. | 6.00 | nos. |
| 3 | Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in the existing RCC/ HUME / STONE WARE/ GI/ DWC pipe as required.4 core 10 sq mm | 5.00 | metre |
| 4 | Supply & laying of DWC pipe in ordinary soil 0.75m below ground level including excavation 50/38 mm or nearest size | 5.00 | metre |
| 5 | Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.4 X 10 sq. mm (25mm) | 2.00 | set |

| | | | |
|----|---|-------|-------|
| 6 | Supply and providing pipe earthing as per IS 3043 with 2 Mtr long 40mm dia b-Class GI Pipe, GI funnel with weld mesh filling required quantity of charcoal and salt including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40mm broken stone (10cm thick) brick work in cement mortar 1:6 plastering the surface of brick masonry and the exposed surface of pcc bed with cement mortar 1:4:12mm thick, (the finished inside dimension shall be 300x300x300mm) but excluding the test joint earth continuity conductor to the plate and covering at the top (in ordinary soil) | 2.00 | set |
| 7 | Providing and fixing 25 mm X 3 mm G.I. strip earth lead from the test joint to the earth plate | 10.00 | metre |
| 8 | Providing and fixing 2 X 25 mm X 3 mm G.I. strip test joint for earthing system | 0.50 | metre |
| 9 | Supply of superior quality 3.15mm copper earth socket and including crimping etc. as required. | 6.00 | each |
| 10 | Supply and providing 25x3mm brass nut and bolt etc. as required. | 4.00 | each |
| 11 | Providing and fixing 3.15 mm dia copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required. | 10.00 | metre |
| 12 | Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. The measurements will be taken the area of the complete sheets used for panel board including partitions, folding, shrouding etc. Supply and fabrication of MV panel board using 1.6mm CRCA sheet, powder coated (excluding base frame) | 2.00 | sqm |
| 13 | Supply and providing heavy duty 'A' section neoprene gasket in the panel board 'U' section rubber bedding suitable for 1.60/ 2.00 mm sheet | 2.00 | metre |
| 14 | Supply and fabrication conveyance and installation of angle iron frame work for wall mounting panel board | 5.00 | kg |

| | | | |
|----|--|-------|--------|
| 15 | Supply and providing copper earth bus in the panel board | 10.00 | Cum cm |
| 16 | Supply and wiring with PVC insulated stranded single core copper conductor cables for interconnecting the control devices/ equipments including the wiring firm by suitable tie/ tie mounts/ PVC duct etc as required. 4.00Sqmm single run | 3.00 | metre |
| 17 | Supply and fixing 32mm dia G.I. pipe or nearest size (medium class) with fittings as required | 3.00 | metre |
| 18 | Supplying and fixing 32 A, 2 Way neutral links mounted on DMC/SMC base with connections, in existing meter board | 1.00 | each |
| 19 | Supplying and fixing 32, HRC Fuse with HRC Fuse link with connections, in existing meter board | 3.00 | each |
| 20 | Supply and fixing Marble plaque with the name of MLA, name of project, year of project, estimate cost and name of implementing agency | 1.00 | each |
| 21 | Supply and Fixing of Board on the mast with Angle Frame and ACP with reflecting sticker. | | |
| 22 | Charges for KSEB connection including all liaison works and PWD charges | 1.00 | each |

BILL OF MATERIALS FOR SUPPLY AND INSTALLATION OF 8 METER MINI MAST WITH 5 NOS OF 150W LED FLOOD LIGHT FITTINGS WITH THREE YEARS WARRANTY

| SLNo | Qty | | Specification | Unit |
|------|-----|----------------|--|----------------|
| 1 | 1 | No | Supply of 8 M Octogonal Pole Minimast shaft in one/Two section suitable for wind speed as per IS 875 Part-3, fixed head frame including round arm, luminaries carriage suitable to install 6/4 No luminaries in symmetrical arrangement, including connector, Foundation bolt and junction box etc as required. | E |
| 2 | 5 | Nos | Transportation from the point of delivery, handling, Installation, testing and commissioning of 150W LED Flood Light supplied by the company (LT Make) and its service & maintenance for 3years. Service support shall be provided by the contractor in association with the LED light supplier. | E |
| 3 | 1 | No | Supply and installation of outdoor stand mounted feeder pillar suitable for full control of luminaries with 32A TPN MCB incomer, single dial time switch, 25A TP contactor for the automatic switching of luminaries 16sqmm and out going 16 & 2.5 sqmm terminals | E |
| 4 | 2 | Nos | Supply and providing pipe earthing as per IS 3043 with 2m long 40mm dia B class GI pipe, GI funnel with weld mesh, filling required quantity of charcoal & salt including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40mm broken stone(10cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4:, 12mm thick, (the finished inside dimension shall be 300x300x300mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top (in ordinary soil) | E |
| 5 | 1 | m ² | Plastering with cement mortar 1:4, 12mm thick one coat. | m ² |
| 6 | | | Supply and providing test joint for the earthing system using 2 Nos of the following sizes of strips including cutting and bending to shape, drilling necessary holes and fixed to the watering pipe etc as required. | |
| a | 0.4 | m | 2 x 25 x 3 mm G.I strip | m |
| 7 | | | Supply and providing earth lead from the test joint to the earth electrode using the following sizes of conductors/ strips including cutting, drilling necessary holes (in case of strip) and fixing firmly with plate test joint etc as required. | |
| a | 3 | m | 2 x 25 x 3 mm GI strip | m |
| 8 | | | Supply and laying <i>strips</i> of the following sizes <i>along with wiring/ cables</i> and giving connection as required. | |
| a | 1 | m | 25 x 3 mm GI strip | m |
| 9 | | | Supply and laying bare earthing conductors of the following sizes laid 0.6 m below ground level including excavating trench of suitable size and refilling etc. as required (in ordinary soil). | |
| a | 3.5 | m | 25 x 3 mm GI strip | m |
| 10 | | | Supply and providing the following sizes of bolt and nut with washers on the existing MS box / earth bus etc. as required including drilling necessary holes as required | |
| a | 8 | Nos | 25 x 6 mm GI bolt & nut | E |

| | | | | |
|----|-----|----------------|---|----------------|
| 11 | | | Supplying , threading , laying and jointing of the following sizes of 'B' class GI pipe with all required accessories in ground in the existing trench as protective covering to earth leads. | |
| a | 10 | m | 40mm | m |
| 12 | 5 | m ³ | Earth work excavation in <i>ordinary soil</i> and depositing with a lead up to 50 m and lift up to 1.50 m including neat banking | m ³ |
| 13 | 0.5 | m ³ | <i>Plain cement concrete</i> 1:4:8 using 40mm (Normal size) broken stone. (m ³) | m ³ |
| 14 | 2 | m ² | <i>Form work for reinforced cement concrete in</i> slabs including wooden planks, joists, bamboo posts and labour for taking down after completion of work (Hire and labour charges only) | m ² |
| 15 | 1 | m ² | <i>Colour washing</i> , two coats | m ² |
| 16 | | | Supply and fixing the following sizes of <i>PVC Conduit</i> conforming to IS 9537 / 1983 part III along with all required accessories <i>on surface</i> including making good the damages etc as required. | |
| a | 5 | m | 32 mm dia light gauge | m |
| 17 | | | Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required. | |
| a | 10 | m | 3.15 mm GI conductor (10 SWG) | m |
| 18 | | | Supply & laying of one number PVC insulated and PVC sheathed armoured copper power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil). | |
| a | 10 | m | 4 core 6 sq mm | m |
| 19 | | | Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in the existing RCC/ HUME / STONE WARE/ GI/ DWC pipe as required. | |
| a | 10 | m | 4 core 6 sq mm | m |
| 20 | | | Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required. | |
| a | 2 | m | 4 core 6 sq mm with factory made clamp | m |
| 21 | | | Supplying siemens / tropodur type nickel plated Double compression brass cable gland for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 2/ 3/ 3½/ 4 core cable of the following sizes as required. | |
| a | 2 | Nos | 6 sq mm | E |
| 22 | | | Supplying and providing <i>earth clamps</i> for siemens/ tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required. | |
| a | 2 | Nos | 4sqmm-16 sq mm with thick clip | E |

| | | | | |
|----|---|-----|---|----|
| 23 | | | Supply of superior quality <i>aluminium reducer (banana) cable socket</i> and making core termination of cables of the following sizes including crimping etc. as required. | |
| a | 8 | Nos | 6 sq mm | E |
| 24 | | | Fabrication, supply & installation of dust and vermin proof, wall mounting, thermoplastic meter box of following size suitable for fixing KSEB meter, fuse units, CT etc, hinged door construction for the front side with compartments if necessary, providing vision panel for the meter compartment, knock out for cable entry and exit. | |
| a | 1 | No | 600x300x214mm | E |
| 25 | 5 | kg | Fabrication, supply, conveyance and installation of <i>angle iron frame work</i> for wall mounting panel board using suitable size angle iron cut and welded to shape including painting with two coats of synthetic enamel paint over a coat of zinc chromate primer, bolting the frame to the panel using required bolt and nuts, fixing the whole to the wall, making good the damages etc. as required. | kg |
| 26 | | | Supply and fixing the following accessories in the existing meter board and giving connections etc. | |
| a | 1 | Nos | 32 A fuse holder for BS type blade fuses. | E |
| 27 | | | 2 Way Neutral link | |
| a | 1 | No | 32 A, 415 V, 2 way neutral link mounted on DMC/ SMC base. | E |
| 28 | | | S & F following HRC fuses | |
| a | 1 | Nos | 20-32 A, clip-on offset tag fuse link of size f1 | E |
| 29 | | | Supplying , threading , laying and jointing of the following sizes of 'B' class <i>GI pipe</i> with all required accessories | |
| a | 7 | m | 50mm(for using KSEB service wire supporting) | m |
| 30 | | | Supply and fixing of granite plaque with the name of work, name of MLA, Fund details, year, estimate amount, implementing Agency | LS |
| 31 | | | Fabrication supply, conveyance and installation of angle frame iron for four sides of the mast for installing name board of MLA with ACP sheet and reflecting sticker | LS |
| 32 | | Ls | KSEB Charge & PWD Charges | Ls |