

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
**THIRUVANANTHAPURAM**

**Present: Sri T.K Jose, Chairman**  
**Adv A.J Wilson, Member**  
**Sri B Pradeep, Member**

**OP No 36/2023**

In the matter of : Approval of Cost Data and per KVA rates  
for Distribution Works

Petitioner : Kerala State Electricity Board Limited  
(KSEB Limited)

Petitioner represented by : 1) Rajan M.P, Dy CE, TRAC  
2) Rajesh R, AEE, TRAC

Date of Hearing : 13.12.2023

**Order dated 08-02-2024**

1. Kerala State Electricity Board Limited (herein after referred to as the petitioner or KSEB Limited) has filed a petition on 21.03.2023 as per the provisions of Kerala Electricity Supply Code 2014 for the approval of the cost data for the distribution works for the year 2023-24 for the recovery of expenditure under Section 46 of the Electricity Act 2003. The summary of the petition filed by petitioner is as hereunder.
  - (a) As per the Regulation 33(1) of the Supply Code, 2014, KSEB Ltd shall annually obtain approval of the Commission for cost data of materials and work for recovery of expenditure under Section 46 of Electricity Act 2003. The Commission vide order dated 27.04.2018 in OA No. 17 of 2017 had approved the cost data for the FY 2018-19 based on DSR 2016. The Government of Kerala vide order dated 22.12.2019 had decided that the estimates for all public works being executed through all Engineering Departments, PSU's and Accredited Agencies shall be prepared based on DSR 2018 rates of each item plus applicable cost indices effective from 1.4.2020 onwards. Thereafter, the Government vide GO dated 26.6.2020 deferred the implementation of DSR 2018 and ordered to continue with DSR 2016. Later on, Public Works Department of Kerala vide Circular dated 09.09.2021 has published the cost indices to be applied while preparing estimates based on DSR 2018 and informed that DSR

2018 would be mandatory for all estimates with effect from 15/08/2021 based on Government order dated 13/08/2021.

- (b) The inflationary trend in the economy does have its impact in the cost of labour and materials in the Electricity Sector. In accordance with the Government order, the labour rates of distribution works were revised in accordance with DSR 2018 applying revised cost index. The methodology followed in estimation of cost data approved by KSERC on 27.04.2018 is generally followed this time also. However, standardization of works and materials under distribution sector had been undertaken this time. The methodology followed by the KSEB Ltd in arriving at the cost data is as follows

*Uniform Labour Data -2022* is used for estimation of Probable Amount of Contract of various works under the distribution wing. The Uniform Labour Data 2022 is prepared based on DSR 2018 applying average cost index computed by taking the average cost indices of District headquarters as per the latest cost index published by Chief Engineer (Administration), PWD on 9.9.2021. The cost index thus calculated comes to **1.3662**. Since the contractor's profit was taken as 15% in PRICE software and DSR 2018, the Uniform labour Data was also calculated by providing **15%** contractor's profit. The ULD-2022 includes certain new works as part of standardization and rates for HT and LT ABC works. The ULD-2022 had been approved by the Board for submission before the Commission

*Standard Rate of Distribution Materials:* In the prevailing cost data 2018, the rate of materials had been taken as the rate arrived based on the centrally procured items of the Board for the year 2015-16 duly certified by the Chief Internal Auditor. In the case of items not purchased internally, the rate approved the Commission in the earlier order dated 20.05.2016 was taken for estimation. In the present case, the Board had constituted a Material Rates Determination Committee to formulate a guideline for arriving at standard material rates and to review and update the material rates based on suggested methodology. The committee had suggested to take the weighted average of purchases made by different offices and to provide priority on purchases depending upon the procurement authority as well as year of delivery. The rates arrived by the committee have been taken for preparation of the cost data. For transformers and RMU's, latest rates of purchase of these items had been taken for preparation of the cost data.

*Transportation charges:* In cases where basic data is not available, transportation cost is arrived by applying inflation in the earlier approved transportation charges of the prevailing cost data. In other cases, transportation charge had been arrived based on the rates taken from DSR 2018.

- (c) *Per KVA Rates:* As per clause 4(13) of Electricity (Right of Consumers) Rules 2020 notified by the Central Government, for electrified areas up to 150 KW or such other higher load as the Commission may specify, connection charges shall be fixed on the basis of load, category of connection sought and average cost of connection of the distribution licensee. In compliance to the above, a methodology for arriving at the per KVA rates had been formulated. The methodology was to use the past actuals to average out the costs applicable. Accordingly, details of service connections/services provided during the period from 01.06.2018 to 31.03.2020 were considered for assessing the nominal values. The percentage of connections with weather proof alone, with support pole, with pole insertion, stay, strut, OH line etc had been taken and the presently arrived cost data values had been applied on the same for arriving at the per KVA rates.
- (2) The Commission admitted the petition as OP No. 36/2023. After detailed scrutiny of the petition, the Commission vide letter dated 22.06.2023 directed KSEB Ltd to submit certain clarifications/additional documents.
- (3) In response this, the petitioner has submitted an additional submission and a reply on the observations of the Commission on 14/07/2023. The transportation charges for most of the items have been reduced in the revised submission. The estimates for drawing High Tension Aerial Bunched Cables (HT ABC) and Low-Tension Aerial Bunched Cables (LT ABC) have been revised considering the latest purchase order costs of the HT & LT ABC. The per KVA rates were also revised.
- (4) The petitioner has prayed the Hon. Commission to kindly approve the revised cost data and the per kVA rates for recovery of expenditure under section 46 of Electricity Act, 2003. It was also requested to authorize them to collect the applicable GST from consumers based on the orders issued by the Government in this behalf from time to time.
- (5) Copy of the petition was made available in the website of the Commission and also in the website of KSEB Ltd. Further an abstract of the petition was published in dailies for the information to the public. The public hearing on the petition was conducted at Commissions headquarters on 13/12/2023 on hybrid mode.

- (6) **Comments/views expressed by the Stake holders during the public hearing**  
List of stake holders who participated in the public hearing is appended as Annexure I. Gist of comments/views expressed by stakeholders relevant to the Cost Data is given below
- (a) Sri K Mohammed Rafeek, representing AKLWSCA (All Kerala Licensed Wireman, Supervisors and Contractors Association) requested to exclude the item "estimate for shifting energy meter" from the estimates for giving service connections as it may lead to the misunderstanding that the customer has to pay for the cost of energy meter. He also requested to remove the polycarbonate seals from the estimate as the item is supplied by the meter manufacturer. It was also suggested to change the minimum size of weatherproof wire from 2.5 sq.mm to 10 sq.mm as specified in the National Electrical Code 2023 for aluminium conductors. He also pointed out some discrepancies in the estimates with respect to standards specified in CEA (Measures relating to Safety & Electric Supply) Regulations 2023. For service connections with loads in the range of 10 KW to 50 KW, 50 sq mm cable is proposed. It is costly and that much size is not required for the load range. Moreover, such cables cannot be connected to the terminals of whole current energy meters. He also pointed out the inappropriateness in collecting additional estimated cost for connecting even small loads in the range of 2 KW to an existing consumer having a connected load of 24 KW even though the Licensee does not require any additional materials for connecting up the additional load. He also requested to issue itemized GST invoice to the consumers and also to refund the expenditure for the works not carried out as envisaged in Regulation 83(3) of supply code 2014. Energization charges should be included in the Cost Data.
  - (b) Sri. Rajan M Menon representing KLECWA submitted the discrepancies in collecting and remitting GST by KSEB Ltd for the deposit works undertaken by it.
  - (c) Sri. Sajjad PK representing contractors of distribution wing in Kozhikode region submitted that DSR 2018 has not been implemented in distribution sector of KSEB Ltd even though the same was implemented in other wings of KSEB months back. He also suggested for replacing the GI weather proof support wire with polymeric wires supplied by KSEB Ltd to ensure safety
  - (d) Sri. Shihabudheen P, a consumer pointed out that the GI support wire included in the cost data is not supplied by KSEB Ltd. He requested to exempt the item from the cost data or to refund the cost of unused items to the consumers. He also requested to issue GST invoices to claim input tax credit from the GST Department for eligible consumers.

- (e) Sri Jose T S, Electrical Engineer, TCED submitted that for service connections with loads above 50 KVA, installation of new Distribution Transformers or uprating of existing Transformers is required. TCED requested to introduce per KVA rates for these types of connections factoring the cost of transformers also.
  - (f) Sri. Saji Mathew, Vice President HT & EHT Association submitted the prevailing cost data was approved 5 years back and reasonable increase in rates can be allowed taking into account the present cost of materials as well as labour rates. But he pointed out that for some of the items the proposed costs are seen increased beyond 100%. He has cited an example for installation of RMUs (item 66 of cost data) wherein the estimated costs have increased by 112%. He requested the Commission to thoroughly examine the estimates with increase of more than 30 % and to approve the estimates only after prudent scrutiny. He also requested to install energy efficient transformers with IS 1180 Indian Standard specifications for reducing the losses considerably.
  - (g) Sri. Satheesan P N (KSEB Petty contractors and line workers association) & Sri Arumughan K requested for the Implementation of labour rates as per DSR 2018 in the cost data as soon as possible. Sri Manoj Manoharan representing Contract Workers Association (CITU) submitted that there is considerable increase in the cost of various consumables and labour during the last 5 years and requested to implement revised cost data immediately
  - (h) Sri. Nithin Das, a street light contractor under Kozhikode Corporation pointed out the difficulties in carrying out the street light works with the existing cost data and requested to take inputs from field engineers while preparing the labour/cost data for avoiding such difficulties. He also requested to include span wise rates for drawing street mains in the cost data.
  - (i) Sri Dijo Kappen submitted that there is exorbitant increase in the costs for providing various type of service connections citing the increase in costs for service connections involving posts. He requested to allow applicants/consumers to procure and supply materials to reduce the costs as well as to avoid delay in getting various services. He requested the Commission to prudently examine the estimates and allow only reasonable increase in costs.
  - (j) Sri Mohammed Ashraf Ambadi submitted that there is considerable increase in labour costs for providing Single-Phase Weather-Proof connections and requested to refund the costs of unused materials after the work completion.
- (7) **Analysis and Decision of the Commission**
- (a) Section 46 of the Electricity Act, 2003 empowers the distribution licensee to charge from a person requiring supply of electricity, any expenses reasonably incurred in providing any electric line or electrical plant used for the purpose of giving that supply. Regulation 33 of the Kerala Electricity Supply Code, 2014 stipulates that the licensee shall obtain from the Commission annually, approval

of the schedule of rates for recovery of such expenditure. The Regulation 33 of the Kerala Electricity Supply Code, 2014 is extracted below.

*“33. Approval of Cost Data by the Commission: (1) The licensee shall submit once in a year, a proposal to the Commission for approval of the cost data of the rates of materials and work at which the expenses as per Section 46 of the Act is to be recovered by the licensee. (2) The licensee shall publish such proposal in its web site and publish an extract in one Malayalam daily and one English daily having wide circulation in the State, as directed by the Commission. (3) The Commission shall, after conducting a public hearing on such proposal, scrutinize the proposal, determine the reasonable rates of material and labour and approve cost data with or without modification. (4) The cost data approved by the Commission shall be published in the web site of the licensee and it shall be valid for at least one year from the date of its issue. Provided that the Commission may, on the request of the licensee, enlarge the period of validity of the cost data.”*

- (b) The Commission made detailed scrutiny of the revised proposal submitted by KSEB Limited, comments/views expressed by various stake holders during the public hearing on 13/12/2023, written comments of various stake holders and the various representations received to the Commission. The observations of the Commission are summarized below
- (c) The Commission has approved the rates of drawing of different types of Aerial Bunched Conductors vide order dated 1.7.2015 in O.P No 4/2015 and the Cost Data of other works vide order dated 27.04.2018 in O.A No 17 of 2017. The Commission noted that the Cost Data for drawing Ariel Bunched Cables were released 8 years back and the Cost Data of other works 5 years back.
- (d) In the approved Cost Data for 2018-19, the rates of materials were arrived based on the rates of materials centrally procured by KSEB Limited during 2015-16 certified by the Chief Internal Auditor, KSEB Limited and the labour rates were arrived based on Delhi Schedule of Rates 2016 multiplied by the Cost Index prevailing then published by Chief Engineer (Administration), Kerala Public Works Department. In the present petition filed for approval of Cost Data, KSEB Limited has adopted the standard rates of distribution materials arrived by a committee constituted for the purpose. Standard rates were arrived by taking the weighted average of different purchases made at various levels of KSEB Limited giving priority for purchases depending upon the procurement authority as well as the year of purchase. The labour rate for the present petition is arrived based on Delhi Schedule of Rates 2018 multiplied by the latest Cost Index published by the Chief Engineer (Administration), Kerala Public Works Department.

- (e) The Commission has observed that there is considerable inflation during the period from April 2018 to December 2023. The All-India Consumer Price Index has increased by 38% during the period. Commission has verified the rates of high value items of materials in the proposal with the Purchase Orders issued by KSEB Limited and noted that there is considerable increase in the prices of certain materials used for distribution works. The price of one 8 metre poles has increased by around 24 %, prices of ACSR conductors has increased by 21% to 26%, prices of Distribution transformers has increased by 45% to 91% and Ring Main Units by 110 % to 132%. The increase in prices is due to inflation as well as change in specifications of certain materials. KSEB Limited is now procuring Energy Efficient Transformers as per BEE standards. The Ring Main Units presently procured by KSEB Ltd are SCADA compatible. The labour rates were also increased by 44% on comparison with the rates of 2018 (labour rates of DSR 2018 with applicable cost index with respect to the labour rates of DSR 2016 with applicable cost index). Further instead of the 10% allowed earlier, now KSEB Ltd has proposed 15% as Contractor's profit and Overhead charges following CPWD norms. These factors have contributed to increase in rates of materials and labour.
- (f) The Commission has examined the estimates in the present Cost Data proposal with respect to estimated cost data of distribution materials approved by the Commission during 2018. Detailed scrutiny has been done on estimates where there is considerable increase. The comments of stake holders have been appropriately considered wherever applicable. Commission has observed that there is increase in the estimate costs due to additional cost of materials and labour for standard construction practices in addition to increase in cost of materials and labour due to inflation. Standard construction practices improve quality of work, easy of workmanship and ensure safety to employees as well as to public. Also, the number of poles used for drawing HT lines and LT lines as per the proposal have increased compared to the earlier approved Cost Data. KSEB Limited has substantiated the increase in number of HT poles, citing the fact that since LT network penetration is very high in recent times, many HT lines are now being drawn along the Right of Way of these LT lines and hence all posts need to be changed. Also, the LT lines are mostly drawn along the roads, not necessarily straight roads, with short span lengths and hence greater number of poles are required. Since the reason furnished by the KSEB Limited is reasonable, Commission decides to approve the increase in poles.
- (g) The Commission has also analyzed the per KVA rates proposed by KSEB Limited for service connections. In the proposal, KSEB Limited has proposed rates per

service connection for loads up to 10 KW and per KVA rates for connections with loads beyond 10 KW. In the proposal, there is no distinction in the rates on the basis of load or category of connections. As per rule 4(13) of Electricity (Right of Consumers) Rules 2020 notified by the Government of India, "for electrified areas up to 150 kW or such higher load as the Commission may specify the connection charges for new connection shall be fixed **on the basis of the load, category of connection sought and average cost of connection** of the distribution licensee so as to avoid site inspection and estimation of demand charges for each and every case individually". As per the draft of the Kerala Electricity Supply (Fifth Amendment) Code published by the Commission, the following amendment is proposed to Regulation 32(2) of Supply Code 2014. "Provided that, for consumers/ applicants availing supply at **LT and 11kV**, excluding those consumers under Regulation 36 of this Code and consumers/ applicants whose premises is at a distance of over 200m from the existing distributing main at the applicable voltage level, the licensee shall recover the expenditure based on the per kVA/ kW rate approved by the Commission. The per kVA/ kW rates shall be differentiated based on the **load factor, power factor, category of connection, voltage, total consumption of electricity during any specified period of time, geographical position** etc. of the consumers". The draft implies that per KVA/KW rates have to be implemented to all LT connections and HT connections excluding those consumers coming under Regulation 36 of Supply Code. In the present proposal, KSEB Ltd has proposed per KVA rates only for LT consumers with loads up to 100 KW. Further in the proposal, there is no differentiation in the rates based on load, category of connection sought etc as envisaged under Electricity (Right of Consumers) Rules 2020. Also, on analyzing the rate per service connection proposed by KSEB Limited, the Commission noted that there is considerable increase in costs for applicants/consumers, who require lesser line lengths for the weather proof and overhead service connections with load up to 10 KW, compared to the existing rates. In the light of the above, the Commission decided not to implement the per KVA rates presently proposed by KSEB Limited. KSEB Limited shall file a separate petition for approval of per KVA/KW rates after notification of Kerala Electricity Supply Code (Fifth Amendment), 2024 , taking into consideration of all the points mentioned above.

- (h) The Commission decided to approve other items of Cost Data (excluding service connections for which per KVA/KW rates are proposed) with certain modifications and the abstract of the Cost Data is appended to this order. Detailed estimates are given in Annexures 1 to Annexures 42. For individual consumers located inside colonies, high rise buildings or commercial/industrial/residential complexes developed by promoters/builders wherein all internal distribution network including installation of energy meter is already carried by the developer, energization charge of Rs.300/- per consumer shall be collected as ordered in OP No 4 of 2015.
- (i) Commission also decided to allow an interim increase of 10% (Ten percent only) over the rates for items in Annexures 1 to 5, Annexures 7 to 14 and Annexures 21 to 30 of the Commission's Order in O.A No 17 of 2017 dated 27.04.2018 (Cost



Data items relating to effecting the service connections for which KVA/KW rates are to be determined) or the proposed rates, whichever is lower, for a period of 6 months or till the approval of per KVA/KW rates, whichever is earlier.

**(8) Order of the Commission**

Duly considering the provisions in the Electricity Act, 2003, Rules and Regulations made thereunder, petition filed by KSEB Limited and the objections and comments of various stakeholders, the Commission hereby orders that,

- (1) KSEB Limited is authorised to recover from a person requiring supply of electricity in pursuance of Section 46 of Electricity Act 2003, the expenditure incurred by it for various works in connection with providing electric lines or electrical plant required for giving the supply at the rates given in the Abstract of Approved Cost Data of Distribution Works appended to this order. Detailed estimates are given in Annexures 1 to 42.
- (2) KSEB Limited is authorised to collect energisation charges at the rates of Rs. 300/- per consumer for consumers located in colonies, high rise buildings or commercial/industrial/residential complexes developed by promoters/builders etc. as ordered in OP No 4 of 2015.
- (3) KSEB Limited shall file a separate petition for approval of per KVA/KW rates taking into consideration of all the points in paragraph 7(g) of this order within three months from the date of notification of Kerala Electricity Supply (Fifth Amendment) Code by the Commission.
- (4) KSEB Limited is authorised to collect a rate of 10% (Ten percent only) over the rates for items in Annexures 1 to 5, Annexures 7 to 14 and Annexures 21 to 30 of the Order in O.A No 17 of 2017 dated 27.04.2018 or at the rates proposed in the present petition, whichever is lower, for a period of 6 months from the date of this order or till the approval of per KVA/KW rates for the items, whichever is earlier.
- (5) KSEB Limited is also authorised to collect the GST applicable as per orders issued by the Central Government and State Government from time to time.
- (6) The order has prospective effect only.

**Sd/-  
T K Jose  
Chairman**

**Sd/-  
Adv. A J Wilson  
Member**

**Sd/-  
B Pradeep  
Member**

Approved for issue

**Sd/-  
C R Satheesh Chandran  
Secretary**

## **ANNEXURE-I**

### **LIST OF PERSONS PARTICIPATED IN THE PUBLIC HEARING ON 13.12.2023**

#### **List of persons present at the Court Hall of Commission, Thiruvananthapuram**

1. Shri. K. Mohammed Rafeek, AKLWSCA
2. Shri. Narayanankutty, KSEB Consumer
3. Shri. Sunilkumar M M, AKLWSCA
4. Shri. Shihabudheen P, KSEB Consumer
5. Shri. C S. Girishkumar, AKWA
6. Shri. K. Omanakuttan, Palakkad
7. Shri. Baburaj. K, Kasargod
8. Shri. K. Jagan Mohan, Kozhikode
9. Shri. Anwar T.M, Kasargod
10. Shri. V.V. Vinod Kumar, Kasargod
11. Shri. Mohammed Kunju, Kasargod
12. Shri. Ramith. K. Rajan, Kottayam
13. Shri. Jagatheesh K.T, Kannur
14. Shri. Dileep. I, Kannur
15. Shri. Shaji R, Thiruvananthapuram
16. Shri. Jayaram. R, Thiruvananthapuram
17. Shri. Kiran, Thiruvananthapuram
18. Shri. Sumesh Soman, Ernakulam
19. Shri. Riyas K. H, Ernakulam
20. Shri. Baby Paul, Ernakulam
21. Shri. Abdul Majeed O.P, Malappuram
22. Shri. Mujeeb Rahiman, Malappuram
23. Shri. Abdul Nazer, Malappuram
24. Shri. Cletus Antony, DECA
25. Shri. Khalid. P, AE, KSEB Ltd
26. Shri. Manoj. B. Nair, AEE Planning, KSEB Ltd
27. Smt. Archana. M, AE, TRAC, KSEB Ltd
28. Shri. Ajith Kumar. K.N, EE, TRAC, KSEB Ltd
29. Shri. Er. Rajan. M. Menon, President KLECWA
30. Shri. Sunil Kumar V.V, DCE, IT, KSEB Ltd
31. Shri. Rajan M. P, DCE, TRAC, KSEB Ltd
32. Shri. Rajesh R, AEE, TRAC, KSEB Ltd
33. Shri. Manu Senan V, AEE, TRAC, KSEB Ltd
34. Shri. Sajjad. P. K, KSEBL Contractors Association, Kozhikode

List of persons participated in the public hearing on online mode

1. Shri. T. S Jose, EE, TCED
2. Shri. Saji Mathew, Vice President, HT & EHT Association, MRF Ltd – Kottayam
3. Shri. P.N Satheesan, KSEB Petty contractors and line workers association
4. Shri. Mohammed Ashraf Ambadi
5. Shri. Nithin Das
6. Shri. Dileep
7. Shri. Arumughan. K
8. Shri. Kaladharan. K
9. Shri. Jayesh
10. Shri. Manoj Manoharan
11. Shri. Soman Madakkimala
12. Shri. Ramkumar. S
13. Shri. Janeesh
14. Shri. Thoufeeq V. A
15. Shri. Jiril. G. Palath
16. Shri. Aboobacker
17. Shri. Nazeer, Noor Associates
18. Shri. Ranjith Rajamani
19. Shri. Pradeep. K
20. Shri. Dijo Kappen

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
ORDER IN OP No 36/2023 dated 8/2/2024  
Approved Cost Data of distribution works for KSEB Limited

**Abstract**

<b>Sl.No</b>	<b>Description of the work</b>	<b>Rate approved by the Commission in Rupees</b>
1	Providing support pole for weather proof service connection	<b>7547</b>
2	Post insertion for LT single phase overhead line (without stay)	<b>8563</b>
3	Post insertion for LT single phase overhead line (with stay)	<b>11706</b>
4	Post insertion for LT single phase overhead line (with strut)	<b>16455</b>
5	Post insertion for LT three phase overhead line (without stay)	<b>9365</b>
6	Post insertion for LT three phase overhead line (with stay)	<b>12508</b>
7	Post insertion for LT three phase overhead line (with strut)	<b>17257</b>
8	Shifting Single Phase Energy Meters	<b>909</b>
9	Shifting Three Phase Energy Meters	<b>1195</b>
10	Shifting Three Phase CT Meters	<b>1792</b>

**Sd/-**  
**T K Jose**  
**Chairman**

**Sd/-**  
**Adv. A J Wilson**  
**Member**

**Sd/-**  
**B Pradeep**  
**Member**

Approved for issue

**Sd/-**  
**C R Satheesh Chandran**  
**Secretary**

## Abstract

11	HT pole insertion in HT/LT line (with stay)	<b>18608</b>
12	HT pole insertion in HT/LT line (with strut using 8m pole)	<b>22208</b>
13	Providing strut using LT pole	<b>7892</b>
14	Providing strut using HT pole	<b>10154</b>
15	Providing LT stay	<b>3143</b>
16	Providing HT stay	<b>4293</b>
17	Adding one conductor (ACSR Rabbit) on the existing poles (where cross arm is not available) inclusive of cost of pin, insulator etc.	<b>82 (per metre)</b>
18	Conversion of 1km LT single phase 2 wire line to LT Three phase 4 wire line	<b>180 (per metre)</b>
19	Conversion of 1km LT single phase 2 wire line to LT Three phase 5 wire line	<b>258 (per metre)</b>
20	Conversion of 1km LT single phase 3 wire line to LT Three phase 5 wire line	<b>188 (per metre)</b>
21	Drawing 1km LT OH Line on existing poles 2 wire ACSR Rabbit	<b>156 (per metre)</b>
22	Drawing 1km LT OH Line on existing poles 3 wire ACSR Rabbit	<b>229 (per metre)</b>

**Sd/-**  
**T K Jose**  
**Chairman**

**Sd/-**  
**Adv. A J Wilson**  
**Member**

**Sd/-**  
**B Pradeep**  
**Member**

Approved for issue

Sd/-  
C R Satheesh Chandran  
Secretary

### Abstract

23	Drawing 1km LT OH Line on existing poles 4 wire ACSR Rabbit	<b>287</b> (per metre)
24	Drawing 1km LT OH Line on existing poles 5 wire ACSR Rabbit	<b>377</b> (per metre)
25	Constructing 1km LT OH Line 2 wire with Rabbit using PSC Poles	<b>487</b> (per metre)
26	Constructing 1km LT OH Line 3 wire with Rabbit using PSC Poles	<b>562</b> (per metre)
27	Constructing 1km LT OH Line 4 wire with Rabbit using PSC Poles	<b>634</b> (per metre)
28	Constructing 1km LT OH Line 5 wire with Rabbit using PSC Poles	<b>718</b> (per metre)
29	Constructing 1km 11kV OH Line with ACSR Raccoon using PSC Poles	<b>966</b> (per metre)
30	Constructing 1km 11kV line with UG Cable 300 sqmm by open trench	<b>2657</b> (per metre)
31	Constructing 1km 11kV OH Line with ACSR Raccoon using A type Poles	<b>1500</b> (per metre)
32	Installation of 1 No. 11 KV/ 433 V, 100 KVA Transformer without stay (pole mounted)	<b>*490575</b>
33	Installation of 1 No. 11 KV/ 433 V, 160 KVA Transformer without stay (pole mounted)	<b>*624092</b>

\*Estimated cost does not include cost of fencing and construction of yard

**Sd/-**  
**T K Jose**  
**Chairman**

**Sd/-**  
**Adv. A J Wilson**  
**Member**

**Sd/-**  
**B Pradeep**  
**Member**

Approved for issue

**Sd/-**  
**C R Satheesh Chandran**  
**Secretary**

## Abstract

34	Installation of 1 No.11 KV/ 433V, 250 KVA Transformer	<b>*810265</b>
35	Installation of Data Acquisition compatible Extensible type Ring Main Unit without VCB -CCC (E) (Cable -Cable -Cable)	<b>*847800</b>
36	Installation of Data Acquisition compatible Extensible type Ring Main Unit with VCB -CTC (E) (Cable -Transformer -Cable)	<b>*891215</b>
37	Installation of Data Acquisition compatible Extensible add-on type Ring Main Unit without VCB (Single Switch C-Extension)	<b>429904</b>
38	Installation of Data Acquisition compatible, Extensible, add-on type Ring Main Unit with VCB (Single Switch T-Extension)	<b>561411</b>
39	Installation of Data Acquisition compatible Extensible type Ring Main Unit with provision for isolation and earthing facility on both sides (gCCg)	<b>*536546</b>
40	Drawing 1km of HT ABC of size 3X150 + 1X120 sq mm using 9 M PSC Poles	<b>2188</b> (per metre)
41	Drawing 1km of HT ABC of size 3X120 + 1X95 sq mm using 9 M PSC Poles	<b>2005</b> (per metre)
42	Drawing 1km of LT ABC of size 3X70 + 1X50 +1X16 sq mm using 8 M PSC Poles	<b>819</b> (per metre)

\* Estimated cost does not include cost of fencing and construction of yard

**Sd/-**  
**T K Jose**  
**Chairman**

**Sd/-**  
**Adv. A J Wilson**  
**Member**

**Sd/-**  
**B Pradeep**  
**Member**

Approved for issue

Sd/-  
C R Satheesh Chandran  
Secretary

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B Ltd

<b>Providing support pole for weather proof service connection.</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8 M	3364.18	E	1	3364.18
2	Service Clamp	100.00	E	1	100.00
(a)	<b>Cost of material</b>				<b>3464.18</b>
(b)	Centage charges @16%				554.27
	Expenditure on material				4018.45
(c)	Cost of labour				2422.32
(d)	Cost of Transportation				785.57
(e)	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>3207.89</b>
(f)	Overhead charges on (c) &(d) above @10%				320.79
(g)	Total (a +b +c +d +f)				7547.13
	Expenditure to be recovered				7547.13
	Rounded to				<b>7547.00</b>
<b>(Rupees Seven thousand five hundred and forty seven only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Post insertion for LT single phase over head line (without stay)</b>					
SI No	Description	Rate	UoM	Quant ity	Amount
1	Pole PSC 8 M	3364.18	E	1	3364.18
2	Pin Insulator 415V set (with pin)	61.00	Set	1	61.00
3	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	2	108.00
4	Cross Arm GI Channel 2 Line (2 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	520.91	Set	1	520.91
5	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
<b>(a)</b>	<b>Cost of material</b>				<b>4092.09</b>
(b)	Centage charges @16%				654.73
	Expenditure on material				4746.82
(c)	Cost of labour				2683.68
(d)	Cost of Transportation				785.57
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>3469.25</b>
(f)	Overhead charges on (c) &(d) above @10%				346.93
(g)	Total (a +b +c +d +f)				8563.00
	Expenditure to be recovered				8563.00
	Rounded to				<b>8563.00</b>
<b>(Rupees Eight thousand five hundred and sixty three only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B Ltd

<b>Post insertion for LT single phase over head line (with stay)</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8 M	3364.18	E	1	3364.18
2	Pin Insulator 415V set (with pin)	61.00	Set	1	61.00
3	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	2	108.00
4	Cross Arm GI Channel 2 Line (2 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	520.91	Set	1	520.91
5	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
6	Stay Insulator Porcelain 415/240 V	15.00	E	1	15.00
7	Clamp GI for LT Stay for Angular location	240.99	E	1	240.99
8	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	1	228.00
9	Stay Tightner LT	251.00	E	1	251.00
10	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	1	284.00
11	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	2.5	200.00
12	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	4	120.00
13	Helically formed Guy-Grip LT	80.00	E	6	480.00
<b>(a)</b>	<b>Cost of material</b>				<b>5911.08</b>
(b)	Centage charges @16%				945.77
	Expenditure on material				6856.85
(c)	Cost of labour				3622.50
(d)	Cost of Transportation				785.57
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>4408.07</b>
(f)	Overhead charges on (c) &(d) above @10%				440.81
(g)	Total (a +b +c +d +f)				11705.73
	Expenditure to be recovered				11705.73
	Rounded to				<b>11706.00</b>
<b>(Rupees Eleven thousand seven hundred and six only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Post insertion for LT single phase over head line (with strut)</b>					
SI No.	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8M	3364.18	E	2	6728.36
2	Pin Insulator 415V Set (with pin)	61.00	Set	1	61.00
3	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	2	108.00
4	Cross Arm GI Channel 2 Line (2 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	520.91	Set	1	520.91
5	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
6	Clamp GI For 8 mt Strut Pole (For Pole)	103.25	E	2	206.50
7	Bolt& Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	Kg	0.33	37.95
8	Clamp GI For 8 mt Strut Pole (For Strut)	103.25	No	2	206.50
<b>(a)</b>	<b>Cost of material</b>				<b>7907.22</b>
(b)	Centage charges @16%				1265.16
	Expenditure on material				9172.38
(c)	Cost of labour				5049.55
(d)	Cost of Transportation				1571.13
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>6620.68</b>
(f)	Overhead charges on (c) &(d) above @10%				662.07
(g)	Total (a +b +c +d +f)				16455.13
	Expenditure to be recovered				16455.13
	Rounded to				<b>16455.00</b>
<b>(Rupees Sixteen thousand four hundred and fifty five only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Post insertion for LT three phase overhead line (without stay)</b>					
SL No.	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8M	3364.18	E	1	3364.18
2	Pin Insulator 415V Set (with pin)	61.00	Set	3	183.00
3	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	4	216.00
4	Cross Arm GI Channel 4Line (4 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	1	824.74
5	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
(a)	<b>Cost of material</b>				<b>4625.92</b>
(b)	Centage charges @16%				740.15
	Expenditure on material				5366.07
(c)	Cost of labour				2849.91
(d)	Cost of Transportation				785.57
(e)	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>3635.48</b>
(f)	Overhead charges on (c) &(d) above @10%				363.55
(g)	Total (a +b +c +d +f)				9365.10
	Expenditure to be recovered				9365.10
	Rounded to				<b>9365.00</b>
<b>(Rupees Nine thousand three hundred and sixty five only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Post insertion for LT three phase overhead line (with stay)</b>					
Sl. No.	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8M	3364.18	E	1	3364.18
2	Pin Insulator 415V Set(with pin)	61.00	Set	3	183.00
3	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	4	216.00
4	Cross Arm GI Channel 4 Line (4 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	1	824.74
5	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
6	Stay Insulator Porcelain 415/240 V	15.00	E	1	15.00
7	Clamp GI for LT Stay for Angular location	240.99	E	1	240.99
8	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	1	228.00
9	Stay Tightner LT	251.00	E	1	251.00
10	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	1	284.00
11	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	2.5	200.00
12	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	4	120.00
13	Helically formed Guy-Grip LT	80.00	E	6	480.00
<b>(a)</b>	<b>Cost of material</b>				<b>6444.91</b>
(b)	Centage charges @16%				1031.19
	Expenditure on material				7476.10
(c)	Cost of labour				3788.73
(d)	Cost of Transportation				785.57
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>4574.30</b>
(f)	Overhead charges on (c) &(d) above @10%				457.43
(g)	Total (a +b +c +d +f)				12507.83
	Expenditure to be recovered				12507.83
	Rounded to				<b>12508.00</b>
<b>(Rupees Twelve thousand five hundred and eight only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Post insertion for LT three phase overhead line (with strut)</b>					
SI No.	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8M	3364.18	E	2	6728.36
2	Pin Insulator 415V Set (with pin)	61.00	Set	3	183.00
3	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	4	216.00
4	Cross Arm GI Channel 4 Line(4 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	1	824.74
5	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
6	Clamp GI For 8 mt Strut Pole (For Pole)	103.25	E	2	206.50
7	Bolt& Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	Kg	0.33	37.95
8	Clamp GI For 8 mt Strut Pole (For Strut)	103.25	No	2	206.50
<b>(a)</b>	<b>Cost of material</b>				<b>8441.05</b>
(b)	Centage charges @16%				1350.57
	Expenditure on material				9791.62
(c)	Cost of labour				5215.78
(d)	Cost of Transportation				1571.13
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>6786.91</b>
(f)	Overhead charges on (c) &(d) above @10%				678.69
(g)	Total (a +b +c +d +f)				17257.22
	Expenditure to be recovered				17257.22
	Rounded to				<b>17257.00</b>
<b>(Rupees Seventeen thousand two hundred and fifty seven only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Shifting Single Phase Energy Meters</b>					
SI No.	Description	Rate	UoM	Quantity	Amount
1	Shifting one no. single phase service connection metering equipment with all fittings including lowering down the WP service wire, dismantling meter board without making damage and refitting the same at a new location and redoing the WP service wire with all fittings.		Each	1	825.91
	Add 10% overhead charges				82.59
	Total				908.50
	Expenditure to be recovered				908.50
	Rounded to				<b>909.00</b>
<b>(Rupees Nine hundred and nine only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Shifting Single Phase Energy Meters</b>					
<b>SI No.</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	Shifting one no.three phase service connection metering equipment with all fittings including lowering down the WP service wire, dismantling meter board without making damage and refitting the same at a new location and redoing the WP service wire with all fittings.		Each	1	1086.23
	Add 10% overhead charges				108.62
	Total				1194.85
	Expenditure to be recovered				1194.85
	Rounded to				<b>1195.00</b>
<b>(Rupees One thousand one hundred and ninety five only)</b>					



**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Shifting Three Phase CT Meters</b>					
<b>SI No.</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	Shifting one no.three phase service connection metering equipment (CT Connected)with all fittings including lowering down the WP service wire, dismantling meter board without making damage and refitting the same at a new location and redoing the WP service wire with all fittings.		Each	1	1628.82
	Add 10% overhead charges				162.88
	Total				1791.70
	Expenditure to be recovered				1791.70
	Rounded to				<b>1792.00</b>
<b>(Rupees One thousand seven hundred and ninety two only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>HT Pole insertion in HT/LT line (with stay)</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	Pole PSC 9M	3908.00	E	1	3908.00
2	Composite Pin Insulator 11kV with pin	156.00	Set	3	468.00
3	GI wire 6mm Dia 4 SWG	93.00	kg	4	372.00
4	V Cross Arm GI 11kV	1211.44	E	1	1211.44
5	Clamp GI for 11kV Line V Cross Arm	190.94	E	1	190.94
6	Pole top bracket -F type GI -11kV	154.00	E	1	154.00
7	Bolt & Nut GI FT M 12×150 (6"×1/2")	115.00	kg	0.4	46.00
8	Bolt & Nut GI FT M 16×75	115.00	kg	0.42	48.30
9	Helically formed fitting -Distribution top tie for ACSR Raccoon	36.00	E	3	108.00
10	Stay Insulator Porcelain 11kV	40.00	E	1	40.00
11	Anchor Plate 200×200×8mm GI (HT Stay Plate GI)	572.00	E	1	572.00
12	Stay Tightener HT	395.00	E	1	395.00
13	Stay wire 7/8(7/3.15mm) GI (HT stay wire)	80.00	Kg	4	320.00
14	Stay rod (Anchor rod) GI 20mm dia (HT stay rod)	405.00	E	1	405.00
15	Helically formed Guy-Grip HT	91.00	E	6	546.00
16	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	4	120.00
17	Pin insulator 415V set (with pin)	61.00	Set	3	183.00
18	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	4	216.00
19	Cross Arm GI Channel 4line (4line channel cross arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	1	824.74
20	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
<b>(a)</b>	<b>Cost of material</b>				<b>10166.42</b>
(b)	Centage charges @16%				1626.63
	Expenditure on material				11793.05
(c)	Cost of labour				5410.23
(d)	Cost of Transportation				785.57

(e)	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>	<b>6195.80</b>
(f)	Overhead charges on (c) &(d) above @10%	619.58
(g)	Total (a +b +c +d +f)	18608.43
	Expenditure to be recovered	18608.43
	Rounded to	<b>18608.00</b>
<b>(Rupees Eighteen thousand six hundred and eight only)</b>		

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

HT pole insertion in HT /LT line (with strut using 8m pole)					
SI No.	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 9M	3908.00	E	1	3908.00
2	Composite Pin Insulator 11kV with pin	156.00	Set	3	468.00
3	GI wire 6mm Dia 4 SWG	93.00	kg	4	372.00
4	V Cross Arm GI 11kV	1211.44	E	1	1211.44
5	Clamp GI for 11kV Line V Cross Arm	190.94	E	1	190.94
6	Pole top bracket -F type GI -11kV	154.00	E	1	154.00
7	Bolt & Nut GI FT M 12×150 (6"×1/2")	115.00	kg	0.4	46.00
8	Bolt & Nut GI FT M 16×75	115.00	kg	0.42	48.30
9	Helically formed fitting -Distribution top tie for ACSR Raccoon	36.00	E	3	108.00
10	Pole PSC 8M	3364.18	E	1	3364.18
11	Clamp GI For 8mt strut pole (for pole)	103.25	E	2	206.50
12	Bolt& Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	Kg	0.33	37.95
13	Clamp GI For 8 mt Strut Pole (For Strut)	103.25	No	2	206.50
14	Pin insulator 415V Set (With Pin)	61.00	Set	3	183.00
15	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	4	216.00
16	Cross Arm GI Channel 4 Line (4 Line Channel Cross Arm) with clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	1	824.74
17	Reel Insulator Porcelain 415/240 V	38.00	No	1	38.00
<b>(a)</b>	<b>Cost of material</b>				<b>11583.55</b>
(b)	Centage charges @16%				1853.37
	Expenditure on material				13436.92
(c)	Cost of labour				6402.37
(d)	Cost of Transportation				1571.13
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>7973.50</b>

(f)	Overhead charges on (c) &(d) above @10%	797.35
(g)	Total (a +b +c +d +f)	22207.77
	Expenditure to be recovered	22207.77
	Rounded to	<b>22208.00</b>
<b>(Rupees Twenty two thousand two hundred and eight only)</b>		

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Providing strut using LT Pole</b>					
SI No	Description	Rate	UoM	Quant ity	Amount
1	Pole PSC 8M	3364.18	E	1	3364.18
2	Clamp GI for 8 mt strut pole (for pole)	103.25	E	2	206.50
3	Bolt & Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	Kg	0.33	37.95
4	Clamp GI For 8 mt Strut Pole (For Strut)	103.25	No	2	206.50
<b>(a)</b>	<b>Cost of material</b>				<b>3815.13</b>
(b)	Centage charges @16%				610.42
	Expenditure on material				4425.55
(c)	Cost of labour				2365.87
(d)	Cost of Transportation				785.57
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>3151.44</b>
(f)	Overhead charges on (c) &(d) above @10%				315.14
(g)	Total (a +b +c +d +f)				7892.13
	Expenditure to be recovered				7892.13
	Rounded to				<b>7892.00</b>
<b>(Rupees Seven thousand eight hundred and ninety two only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

Providing strut using HT pole					
SI No	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 9 M	3908.00	E	1	3908.00
2	Bolt & Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	kg	0.33	37.95
3	Clamp GI for 9 mt strut pole(for pole)	110.55	E	2	221.10
4	Clamp GI For 9 mt Strut Pole (For Strut)	110.00	E	2	220.00
<b>(a)</b>	<b>Cost of material</b>				<b>4387.05</b>
(b)	Centage charges @16%				701.93
	Expenditure on material				5088.98
(c)	Cost of labour				3819.05
(d)	Cost of Transportation				785.57
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>4604.62</b>
(f)	Overhead charges on (c) &(d) above @10%				460.46
(g)	Total (a +b +c +d +f)				10154.06
	Expenditure to be recovered				10154.06
	Rounded to				<b>10154.00</b>
<b>(Rupees Ten thousand one hundred and fifty four only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Providing LT Stay</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	Stay Insulator Porcelain 415/240 V	15.00	E	1	15.00
2	Clamp GI for LT Stay for Angular location	240.99	E	1	240.99
3	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	1	228.00
4	Stay Tightener	251.00	E	1	251.00
5	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	1	284.00
6	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	2.5	200.00
7	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HTand LT)	30.00	E	4	120.00
8	Helically formed Guy-Grip LT	80.00	E	6	480.00
<b>(a)</b>	<b>Cost of material</b>				<b>1818.99</b>
(b)	Centage charges @16%				291.04
	Expenditure on material				2110.03
<b>(c)</b>	<b>Cost of labour</b>				<b>938.82</b>
(d)	Overhead charges on (c) above @10%				93.88
(e)	Total (a +b +c +d)				3142.73
	Expenditure to be recovered				3142.73
	Rounded to				<b>3143.00</b>
<b>(Rupees Three thousand one hundred and forty three only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Providing HT Stay</b>					
SI No	Description	Rate	UoM	Quant ity	Amount
1	Stay Insulator Porcelain 11k V	40.00	E	1	40.00
2	Anchor Plate 200 x 200 x 8 mm GI (HT Stay Plate GI)	572.00	E	1	572.00
3	Stay Tightener HT	39500.00	E	1	395.00
4	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	4	320.00
5	Stay Rod (Anchor Rod) GI 20 mm dia (HT Stay Rod)	405.00	E	1	405.00
6	Helically formed Guy-Grip HT	91.00	E	6	546.00
7	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HTand LT)	30.00	E	4	120.00
<b>(a)</b>	<b>Cost of material</b>				<b>2398.00</b>
(b)	Centage charges @16%				383.68
	Expenditure on material				2781.68
<b>(c)</b>	<b>Cost of labour</b>				<b>1373.73</b>
(d)	Overhead charges on (c) above @10%				137.37
(e)	Total (a +b +c +d)				4292.78
	Expenditure to be recovered				4292.78
	Rounded to				<b>4293.00</b>
<b>(Rupees Four thousand two hundred and ninety three only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Adding one conductor (ACSR Rabbit) on the existing poles(where cross arm is not available) inclusive of cost of pin, insulator etc.</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Shackle insulator 415V set( with strap bolt & nut)	62.00	set	14	868.00
2	Cross arm GI channel 2line (2 line channel cross arm) with clamp, bolt&nut for PSC pole 8M/200kg	520.91	set	31	16148.21
3	Pin insulator 415V set( with pin )	61.00	set	23	1403.00
4	Helically formed fitting -distribution side tie for ACSR Rabbit	54.00	E	23	1242.00
5	Conductor ACSR Rabbit	42.00	m	1050	44100.00
<b>(a)</b>	<b>Cost of material</b>				<b>63761.21</b>
(b)	Centage charges @16%				10201.79
	Expenditure on material				73963.00
<b>(c)</b>	<b>Cost of labour</b>				<b>7665.27</b>
(d)	Overhead charges on (c)above @10%				766.53
(e)	Total (a +b +c +d)				82394.80
	<b>Expenditure to be recovered</b>				<b>82394.80</b>
	Expenditure to be recovered per metre				82.39
	Rounded to				<b>82.00</b>
<b>(Rupees Eighty two per metre only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Conversion of 1 km LT single phase 2 wire line to LT three phase 4 wire line</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	Conductor ACSR Rabbit	42.00	m	2100	88200.00
2	Shackle insulator 415V set(with strap bolt& nut )	62.00	set	26	1612.00
3	Cross arm 2 line set(with clamp bolt & nut)	260.46	set	-30	-7813.66
4	Cross arm GI channel 4 line (4 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	824.74	set	30	24742.20
5	Pin insulator 415V set (with pin)	61.00	set	46	2806.00
6	Cable 1.1kV XLPE AL 1c x 120 sq mm(Un armoured)	99.00	m	48	4752.00
7	Crimping socket palm type 120 sq mm - Al (Cable Lug)	15.00	E	8	120.00
8	Fuse unit 415V 100A porcelain	414.00	E	3	1242.00
9	Base frame SMC for LT section fuse with neutral link	1522.00	E	1	1522.00
10	Spacer LT 4 line composite (for cable tray)	125.00	E	4	860.00
<b>(a)</b>	<b>Cost of material</b>				<b>118042.54</b>
(b)	Centage charges @16%				18886.81
	Expenditure on material				136929.35
<b>(c)</b>	<b>Cost of labour</b>				<b>39203.48</b>
(d)	Overhead charges on (c) above @10%				3920.35
(e)	Total (a +b +c +d )				180053.17
	<b>Expenditure to be recovered</b>				<b>180053.17</b>
	Expenditure to be recovered per metre				180.05
	Rounded to				<b>180.00</b>
<b>(Rupees One hundred and eighty per metre only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Conversion of 1 km LT single phase 2 wire line to LT three phase 5 wire line</b>					
SI No	Description	Rate	UoM	Quant ity	Amount
1	Conductor ACSR Rabbit	42.00	m	3150	132300.00
2	Shackle insulator 415V set(with strap bolt& nut )	62.00	set	39	2418.00
3	Cross arm GI channel 4 line (4 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	824.74	set	30	24742.20
4	Pin insulator 415V set (with pin)	61.00	set	69	4209.00
5	Helically formed fitting-distribution side tie for ACSR Rabbit	54.00	E	115	6210.00
6	Cable 1.1kV XLPE AL 1c x 120 sq mm(Un armoured)	99.00	m	48	4752.00
7	Crimping socket palm type 120 sq mm - Al (Cable Lug)	15.00	E	8	120.00
8	Fuse unit 415V 100A porcelain	414.00	E	3	1242.00
9	Base frame SMC for LT section fuse with neutral link	1522.00	E	1	1522.00
10	Spacer LT 4 line composite (for cable tray)	215.00	E	4	860.00
<b>(a)</b>	<b>Cost of material</b>				<b>178375.20</b>
(b)	Centage charges @16%				28540.03
	Expenditure on material				206915.23
<b>(c)</b>	<b>Cost of labour</b>				<b>46868.75</b>
(d)	Overhead charges on (c) above @10%				4686.88
(e)	Total (a +b +c +d )				258470.86
	<b>Expenditure to be recovered</b>				<b>258470.86</b>
	Expenditure to be recovered per metre				<b>258.47</b>
	Rounded to				<b>258.00</b>
<b>(Rupees Two hundred and fifty eight per metre only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Conversion of 1 km LT single phase 3 wire line to LT three phase 5 wire line</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Pin insulator 415V set (with pin)	61.00	set	46	2806.00
2	Cross arm GI channel 4 line (4 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	824.74	set	30	24742.20
3	Cross arm 2 line set (with clamp bolt & nut)	260.46	set	-30	-7813.66
4	Conductor ACSR Rabbit	42.00	m	2100	88200.00
5	Shackle insulator 415V set( with strap bolt & nut)	62.00	set	26	1612.00
6	Cable 1.1kV XLPE AL 1c x 120 sq mm(Un armoured)	99.00	m	48	4752.00
7	Crimping socket palm type 120 sq mm - Al (Cable Lug)	15.00	E	8	120.00
8	Fuse unit 415V 100A porcelain	414.00	E	3	1242.00
9	Base frame SMC for LT section fuse with neutral link	1522.00	E	1	1522.00
10	Spacer LT 4 line composite (for cable tray)	215.00	E	4	860.00
<b>(a)</b>	<b>Cost of material</b>				<b>118042.54</b>
(b)	Centage charges @16%				18886.81
	Expenditure on material				136929.35
<b>(c)</b>	<b>Cost of labour</b>				<b>46539.44</b>
(d)	Overhead charges on (c) above @10%				4653.94
(e)	Total (a +b +c +d )				188122.73
	Expenditure to be recovered				188122.73
	Expenditure to be recovered per metre				188.12
	Rounded to				<b>188.00</b>
<b>(Rupees One hundred and eighty eight per metre only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Drawing 1 km LT OH line on existing poles 2 wire ACSR Rabbit</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	Conductor ACSR Rabbit	42.00	m	2100	88200.00
2	Shackle insulator 415V set(with strap bolt& nut )	62.00	set	27	1674.00
3	Cross arm GI channel 2 line (2 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	520.91	set	30	15627.30
4	Ferrules 5 sq mm (GI)	12.00	E	7	84.00
5	Earthing coil GI 115 turns 50 mm internal dia	208.00	E	7	1456.00
6	Earth knob (Aluminium) for LT line	124.00	E	7	868.00
7	Helically formed fitting-distribution side tie for ACSR Rabbit	54.00	E	52	2808.00
8	Pin insulator 415V set (with pin)	61.00	set	23	1403.00
9	Reel insulator porcelain 415/240 V	38.00	No	23	874.00
10	Cable 1.1kV XLPE AL 1c x 120 sq mm (Un armoured)	99.00	m	24	2376.00
11	Crimping socket palm type 120 sq mm - Al(Cable lug)	15.00	E	4	60.00
12	Base frame SMC for LT section fuse with neutral link	1522.00	E	1	1522.00
13	Spacer LT 4 line composite (for cable tray)	215.00	E	2	430.00
14	Fuse unit 415 V 100A porcelain	414.00	E	1	414.00
<b>(a)</b>	<b>Cost of material</b>				<b>117796.30</b>
(b)	Centage charges @16%				18847.41
	Expenditure on material				136643.71
<b>(c)</b>	<b>Cost of labour</b>				<b>17448.63</b>
(d)	Overhead charges on (c) above @10%				1744.86
(e)	Total (a +b +c +d )				155837.20
	<b>Expenditure to be recovered</b>				<b>155837.20</b>
	Expenditure to be recovered per metre				155.83
	Rounded to				<b>156.00</b>
<b>(Rupees One hundred and fifty six per metre only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

Drawing 1 km LT OH line on existing poles 3 wire ACSR Rabbit					
SI No	Description	Rate	UoM	Quantity	Amount
1	Conductor ACSR Rabbit	42.00	m	3150	132300.00
2	Shackle insulator 415V set(with strap bolt& nut )	62.00	set	41	2542.00
3	Cross arm GI channel 4 line (4 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	824.74	set	30	24742.20
4	Ferrules 5 sq mm (GI)	12.00	E	7	84.00
5	Earthing coil GI 115 turns 50 mm internal dia	208.00	E	7	1456.00
6	Earth knob (Aluminium) for LT line	124.00	E	7	868.00
7	Pin insulator 415V set (with pin)	61.00	set	46	2806.00
8	Reel insulator porcelain 415/240 V	38.00	No	23	874.00
9	Helically formed fitting-distribution side tie for ACSR Rabbit	54.00	E	69	3726.00
10	Cable 1.1kV XLPE AL 1c x 120 sq mm (Un armoured)	99.00	m	24	2376.00
11	Crimping socket palm type 120 sq mm - Al(Cable lug)	15.00	E	4	60.00
12	Base frame SMC for LT section fuse with neutral link	1522.00	E	1	1522.00
13	Spacer LT 4 line composite (for cable tray)	215.00	E	2	430.00
14	Fuse unit 415 V 100A porcelain	414.00	E	1	414.00
<b>(a)</b>	<b>Cost of material</b>				<b>174200.20</b>
(b)	Centage charges @16%				27872.03
	Expenditure on material				202072.23
<b>(c)</b>	<b>Cost of labour</b>				<b>24245.13</b>
(d)	Overhead charges on (c) above @10%				2424.51
(e)	Total (a +b +c +d)				228741.88
	<b>Expenditure to be recovered</b>				<b>228741.88</b>
	Expenditure to be recovered per metre				228.74
	Rounded to				<b>229.00</b>
<b>(Rupees Two hundred and twenty nine per metre only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Drawing 1 km LT OH line on existing poles 4 wire ACSR Rabbit</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	Shackle insulator 415V set(with strap bolt& nut )	62.00	set	52	3224.00
2	Cross arm GI channel 4 line (4 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	824.74	set	30	24742.20
3	Ferrules 5 sq mm (GI)	12.00	E	7	84.00
4	Earthing coil GI 115 turns 50 mm internal dia	208.00	E	7	1456.00
5	Earth knob (Aluminium) for LT line	124.00	E	7	868.00
6	Pin insulator 415V set (with pin)	61.00	set	69	4209.00
7	Helically formed fitting-distribution side tie for ACSR Rabbit	54.00	E	92	4968.00
8	Reel insulator porcelain 415/240 V	38.00	No	23	874.00
9	Conductor ACSR Rabbit	42.00	m	4200	176400.00
<b>(a)</b>	<b>Cost of material</b>				<b>216825.20</b>
(b)	Centage charges @16%				34692.03
	Expenditure on material				251517.23
<b>(c)</b>	<b>Cost of labour</b>				<b>31957.45</b>
(d)	Overhead charges on (c) above @10%				3195.75
(e)	Total (a +b +c +d )				286670.43
	<b>Expenditure to be recovered</b>				<b>286670.43</b>
	Expenditure to be recovered per metre				286.67
	Rounded to				<b>287.00</b>
<b>(Rupees Two hundred and eighty seven per metre only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Drawing 1 km LT OH line on existing poles 5 wire ACSR Rabbit</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Shackle insulator 415V set(with strap bolt& nut )	62.00	set	65	4030.00
2	Cross arm GI channel 4 line (4 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	824.74	set	30	24742.20
3	Cross arm GI channel 2 line (2 line channel cross arm) with clamp, bolt & nut for PSC pole 8M/200kg	520.91	set	30	15627.30
4	Ferrules 5 sq mm (GI)	12.00	E	7	84.00
5	Earthing coil GI 115 turns 50 mm internal dia	208.00	E	7	1456.00
6	Earth knob (Aluminium) for LT line	124.00	E	7	868.00
7	Pin insulator 415V set (with pin)	61.00	set	92	5612.00
8	Reel insulator porcelain 415/240 V	38.00	No	23	874.00
9	Helically formed fitting-distribution side tie for ACSR Rabbit	54.00	E	92	4968.00
10	Conductor ACSR Rabbit	42.00	m	5250	220500.00
11	Cable 1.1kV XLPE AL 1c x 120 sq mm (Un armoured)	99.00	m	48	4752.00
12	Crimping socket palm type 120 sq mm - Al(Cable lug)	15.00	E	8	120.00
13	Fuse unit 415 V 100A porcelain	414.00	E	3	1242.00
14	Base frame SMC for LT section fuse with neutral link	1522.00	E	1	1522.00
15	Spacer LT 4 line composite(for Cable tray)	215.00	E	4	860.00
<b>(a)</b>	<b>Cost of material</b>				<b>287257.50</b>
<b>(b)</b>	<b>Centage charges @16%</b>				<b>45961.20</b>
	<b>Expenditure on material</b>				<b>333218.70</b>
<b>(c)</b>	<b>Cost of labour</b>				<b>39715.75</b>
<b>(d)</b>	<b>Overhead charges on (c) above @10%</b>				<b>3971.58</b>
<b>(e)</b>	<b>Total (a +b +c +d)</b>				<b>376906.03</b>

	<b>Expenditure to be recovered</b>	<b>376906.03</b>
	Expenditure to be recovered per metre	376.90
	Rounded to	<b>377.00</b>
<b>(Rupees Three hundred and seventy seven per metre only)</b>		

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Constructing 1 km LT OH line 2 wire with Rabbit using PSC Poles</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	Pole PSC 8 M	3364.18	E	33	111017.94
2	Shackle insulator 415V SET(With Strap Bolt&Nut)	62.00	Set	32	1984.00
3	Earth Knob (Aluminium) for LT Line	124.00	E	8	992.00
4	Earthing Coil GI 115 Turns 50 mm internal Dia	208.00	E	8	1664.00
5	Cross arm GI channel 2 line (2 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	520.91	Set	41	21357.31
6	Ferrules 5 Sq.mm(GI)	12.00	E	7	84.00
7	GI Wire 8 SWG	67.00	kg	1	67.00
8	Pin insulator 415V set (with pin)	61.00	Set	25	1525.00
9	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	50	2700.00
10	Reel Insulator Porcelain 415/240 V	38.00	No	25	950.00
11	Conductor ACSR Rabbit	42.00	m	2100	88200.00
12	Stay Insulator Porcelain 415/240 V	15.00	E	24	360.00
13	Clamp GI for LT Stay for Angular location	240.99	E	24	5783.76
14	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	24	5472.00
15	Stay Tightner LT	251.00	E	24	6024.00
16	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	24	6816.00
17	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	60	4800.00
18	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	96	2880.00
19	Helically formed Guy-Grip LT	80.00	E	144	11520.00
20	Cable 1.1kV XLPE AL 1c X 120 sq mm (Un Armoured)	99.00	m	24	2376.00
21	Crimping Socket Palm Type 120 Sq.mm -Al (Cable Lug)	15.00	E	4	60.00
22	Base Frame SMC for LT Section Fuse with neutral Link	1522.00	E	1	1522.00
23	Spacer LT 4 line Composit (For Cable Tray)	215.00	E	2	430.00
24	Fuse Unit 415 V 100 A Porcelain	414.00	E	1	414.00

<b>(a)</b>	<b>Cost of material</b>	<b>278999.01</b>
(b)	Centage charges @16%	44639.84
	Expenditure on material	323638.85
(c)	Cost of labour	123066.71
(d)	Cost of Transportation	25138.08
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>	<b>148204.79</b>
(f)	Overhead charges on (c) &(d) above @10%	14820.48
(g)	Total (a +b +c +d +f)	486664.12
	<b>Expenditure to be recovered</b>	<b>486664.12</b>
	Expenditure to be recovered per metre	486.66
	Rounded to	<b>487.00</b>
<b>(Rupees Four hundred and eighty seven per metre only)</b>		

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Constructing 1 km LT OH line 3 wire with Rabbit using PSC Poles</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8 M	3364.18	E	33	111017.94
2	Shackle Insulator 415V Set (With Strap Bolt&Nut)	62.00	Set	47	2914.00
3	Cross Arm GI Channel 4 Line (4 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	37	30515.38
4	Earthing Coil GI 115 Turns 50 mm internal Dia	208.00	E	8	1664.00
5	Earth Knob (Aluminium) for LT Line	124.00	E	8	992.00
6	GI Wire 8 SWG	67.00	kg	1	67.00
7	Pin Insulator 415V Set(With Pin)	61.00	Set	75	4575.00
8	Reel Insulator Porcelain 415/240 V	38.00	No	25	950.00
9	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	75	4050.00
10	Conductor ACSR Rabbit	42.00	m	3150	132300.00
11	Stay Insulator Porcelain 415/240 V	15.00	E	24	360.00
12	Clamp GI for LT Stay for Angular location	240.99	E	24	5783.76
13	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	24	5472.00
14	Stay Tightner LT	251.00	E	24	6024.00
15	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	24	6816.00
16	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	60	4800.00
17	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	96	2880.00
18	Helically formed Guy-Grip LT	80.00	E	144	11520.00
19	Clamp for 2/4 line channel Cross Arm for PSC Poles 200kg	78.80	E	1	78.80
20	Bolt& Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	kg	0.22	25.30
21	Cable 1.1kV XLPE AL 1c X 120 sq mm (Un Armoured)	99.00	m	24	2376.00
22	Crimping Socket Palm Type 120 Sq.mm -Al (Cable Lug)	15.00	E	4	60.00
23	Base Frame SMC for LT Section Fuse with neutral Link	1522.00	E	1	1522.00

24	Spacer LT 4 line Composit (For Cable Tray)	215.00	E	2	430.00
25	Fuse Unit 415 V 100 A Porcelain	414.00	E	1	414.00
<b>(a)</b>	<b>Cost of material</b>				<b>337607.18</b>
(b)	Centage charges @16%				54017.15
	Expenditure on material				391624.33
(c)	Cost of labour				129863.41
(d)	Cost of Transportation				25138.08
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>155001.49</b>
(f)	Overhead charges on (c) &(d) above @10%				15500.15
(g)	Total (a +b +c +d +f)				562125.97
	<b>Expenditure to be recovered</b>				<b>562125.97</b>
	Expenditure to be recovered per metre				562.12
	Rounded to				<b>562.00</b>
<b>(Rupees Five hundred and sixty two per metre only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Constructing 1 km LT OH line 4 wire with Rabbit using PSC Poles</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Shackle Insulator 415V Set (with strap bolt & nut)	62.00	Set	64	3968.00
2	Cross Arm GI Channel 4 Line (4 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	41	33814.34
3	Pole PSC 8 M	3364.18	E	33	111017.94
4	Earth Knob (Aluminium) for LT Line	124.00	E	8	992.00
5	Earthing Coil GI 115 Turns 50 mm internal Dia	208.00	E	8	1664.00
6	GI Wire 8 SWG	67.00	kg	1	67.00
7	Pin Insulator 415V Set(With Pin)	61.00	Set	75	4575.00
8	Reel Insulator Porcelain 415/240 V	38.00	No	25	950.00
9	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	100	5400.00
10	Conductor ACSR Rabbit	42.00	m	4200	176400.00
11	Stay Insulator Porcelain 415/240 V	15.00	E	24	360.00
12	Clamp GI for LT Stay for Angular location	240.99	E	24	5783.76
13	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	24	5472.00
14	Stay Tightner LT	251.00	E	24	6024.00
15	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	24	6816.00
16	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	60	4800.00
17	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	96	2880.00
18	Helically formed Guy-Grip LT	80.00	E	144	11520.00
19	Cable 1.1kV XLPE AL 1c X 120 sq mm (Un Armoured)	99.00	m	48	4752.00
20	Crimping Socket Palm Type 120 Sq.mm -Al (Cable Lug)	15.00	E	8	120.00
21	Fuse Unit 415 V 100 A Porcelain	414.00	E	3	1242.00
22	Base Frame SMC for LT Section Fuse with neutral Link	1522.00	E	1	1522.00
23	Spacer LT 4 line Composite (For Cable Tray)	215.00	E	4	860.00
<b>(a)</b>	<b>Cost of material</b>				<b>391000.04</b>
<b>(b)</b>	<b>Centage charges @16%</b>				<b>62560.01</b>

	Expenditure on material	453560.05
(c)	Cost of labour	138887.78
(d)	Cost of Transportation	25138.08
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>	<b>164025.86</b>
(f)	Overhead charges on (c) &(d) above @10%	16402.59
(g)	Total (a +b +c +d +f)	633988.49
	<b>Expenditure to be recovered</b>	<b>633988.49</b>
	Expenditure to be recovered per metre	633.98
	Rounded to	<b>634.00</b>
<b>(Rupees Six hundred and thirty four per metre only)</b>		



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Constructing 1 km LT OH line 5 wire with Rabbit using PSC Poles</b>					
SI No	Description	Rate	UoM	Quantity	Amount
1	Pole PSC 8 M	3364.18	E	33	111017.94
2	Shackle Insulator 415V Set (with strap bolt & nut)	62.00	Set	80	4960.00
3	Cross Arm GI Channel 4 Line (4 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	824.74	Set	38	31340.12
4	Cross Arm GI Channel 2 Line (2 Line Channel Cross Arm) with Clamp, Bolt & Nut for PSC Pole 8M/200kg	520.91	Set	38	19794.58
5	Earth Knob (Aluminium) for LT Line	124.00	E	8	992.00
6	Earthing Coil GI 115 Turns 50 mm internal Dia	208.00	E	8	1664.00
7	GI Wire 8 SWG	67.00	kg	1	67.00
8	Reel Insulator Porcelain 415/240 V	38.00	No	25	950.00
9	Helically Formed Fitting -Distribution Side Tie for ACSR Rabbit	54.00	E	125	6750.00
10	Pin Insulator 415V Set(With Pin)	61.00	Set	100	6100.00
11	Conductor ACSR Rabbit	42.00	m	5250	220500.00
12	Stay Insulator Porcelain 415/240 V	15.00	E	24	360.00
13	Clamp GI for LT Stay for Angular location	240.99	E	24	5783.76
14	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	24	5472.00
15	Stay Tightner LT	251.00	E	24	6024.00
16	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	24	6816.00
17	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	60	4800.00
18	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	96	2880.00
19	Helically formed Guy-Grip LT	80.00	E	144	11520.00
20	Cable 1.1kV XLPE AL 1c X 120 sq mm (Un Armoured)	99.00	m	48	4752.00
21	Crimping Socket Palm Type 120 Sq.mm -Al (Cable Lug)	15.00	E	8	120.00
22	Fuse Unit 415 V 100 A Porcelain	414.00	E	3	1242.00
23	Base Frame SMC for LT Section Fuse with neutral Link	1522.00	E	1	1522.00

24	Spacer LT 4 line Composit (For Cable Tray)	215.00	E	4	860.00
25	Bolt& Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	kg	0.22	25.30
<b>(a)</b>	<b>Cost of material</b>				<b>456312.70</b>
(b)	Centage charges @16%				73010.03
	Expenditure on material				529322.73
(c)	Cost of labour				146734.98
(d)	Cost of Transportation				25138.08
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>171873.06</b>
(f)	Overhead charges on (c) &(d) above @10%				17187.31
(g)	Total (a +b +c +d +f)				718383.10
	<b>Expenditure to be recovered</b>				<b>718383.10</b>
	Expenditure to be recovered per metre				718.38
	Rounded to				<b>718.00</b>
<b>(Rupees Seven hundred and eighteen per metre only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
Cost Data of Distribution works for K.S.E.B.Ltd

<b>Constructing 1 km 11kV OH line with ACSR Raccoon using PSC Poles</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	Pole PSC 9 M	3908.00	E	29	113332.00
2	Hardware Fittings 11kV B&S Type	197.00	E	36	7092.00
3	Disc insulator 11kV Composite Polymeric	119.00	E	36	4284.00
4	Knee bracing for HT Cantiliver cross arm	720.00	E	6	4320.00
5	Channel cross arm GI 75x40x6mm 1.8M	1191.93	E	12	14303.16
6	Cleat GI for 11kV Disc insulator	97.07	E	36	3494.52
7	Pole Top Bracket -F Type GI -11 kV	154.00	E	23	3542.00
8	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	10.7	1230.50
9	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	31.5	3622.50
10	Bolt& Nut GI FT M 16 x 75	115.00	kg	10.92	1255.80
11	Composite Pin Insulator 11 kV with Pin	156.00	Set	75	11700.00
12	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
13	GI Wire 6MM DIA 4 SWG	93.00	kg	96	8928.00
14	Channel cross arm GI 75 x 40 x 6 mm 2.4 mt	1589.35	E	12	19072.20
15	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	3	1222.83
16	Bolt & Nut GI HT 200mm x 19mm	115.00	kg	10.08	1159.20
17	Clamp GI for HT Cross Arm	173.65	E	6	1041.90
18	Helically Formed Fitting -Distribution Top Tie for ACSR Raccoon	36.00	E	66	2376.00
19	Fish Plate GI (GI Flat 260 x 50 x 8 mm)	209.00	E	12	2508.00
20	V cross arm GI 11 kV	1211.44	E	21	25440.24
21	Clamp GI for 11kV line V cross arm	190.94	E	21	4009.74
22	Stay Insulator Porcelain 11k V	40.00	E	27	1080.00
23	Anchor Plate 200 x 200 x 8 mm GI (HT Stay Plate GI)	572.00	E	27	15444.00
24	Stay Tightner HT	395.00	E	27	10665.00
25	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	108	8640.00
26	Stay Rod (Anchor Rod) GI 20 mm dia (HT Stay Rod)	405.00	E	27	10935.00

27	Helically formed Guy-Grip HT	91.00	E	162	14742.00
28	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	108	3240.00
29	Conductor ACSR Raccoon	65.00	m	3150	204750.00
30	G.I.WIRE. 4MM (8 SWG)	81.00	kg	39	3159.00
31	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	8	8448.00
32	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	8	8072.00
33	Earth Connector 95 Sqmm	91.00	E	8	728.00
34	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.96	110.40
35	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	8	48.00
36	Earthing Coil GI 115 Turns 50 mm internal Dia dia	208.00	E	23	4784.00
37	Ferrules 5 Sq.mm(GI)	12.00	E	23	276.00
38	Stainless Steel Buckle Slot width 10.5 mm x 1.5 mm,Thickness 1.2 mm.	10.00	E	184	1840.00
39	SS strap for clamping earth wire	36.00	m	92	3312.00
(a)	Cost of material				550913.99
(b)	Centage charges @16%				88146.24
	<b>Expenditure on material</b>				<b>639060.23</b>
(c)	Cost of labour				271806.88
(d)	Cost of transportation				25138.08
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>296944.96</b>
(f)	Overhead charges on (c) &(d) above @10%				29694.50
(g)	Total (a +b +c +d +f)				965699.68
	Expenditure to be recovered				965699.68
	Expenditure to be recovered per metre				965.69
	Rounded to				<b>966.00</b>
<b>(Rupees Nine hundred and sixty six per metre only)</b>					
1 Amount for PTCC clearance, if any, shall be collected extra.					
2 Tree cutting compensation based on actual expenditure shall be collected extra.					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Constructing 1 km 11 kV Line with UG Cable 300 sq mm by open trench</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	Cable 11kV XLPE AL UG 3c X300 sq mm (Armoured)	1316.00	m	1058	1392328.00
2	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
3	GI Wire 6MM Dia 4 SWG	93.00	kg	4	372.00
4	Channel cross arm GI 75 x 40 x 6 mm 2.4 mt	1589.35	E	3	4768.05
5	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	3	1222.83
6	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	1.5	172.50
7	Bolt & Nut GI HT 200mm x 19mm	115.00	kg	8.04	924.60
8	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	6.75	776.25
9	Stay Insulator Porcelain 11k V	40.00	E	2	80.00
10	Anchor Plate 200 x 200 x 8 mm GI (HT Stay Plate GI)	572.00	E	2	1144.00
11	Stay Tightner HT	395.00	E	2	790.00
12	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	8	640.00
13	Stay Rod (Anchor Rod) GI 20 mm dia (HT Stay Rod)	405.00	E	2	810.00
14	Helically formed Guy-Grip HT	91.00	E	12	1092.00
15	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	8	240.00
16	G.I.Wire. 4MM (8 SWG)	81.00	kg	2	162.00
17	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	1	1056.00
18	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	1	1009.00
19	Earth Connector 95 Sqmm	91.00	E	1	91.00
20	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.12	13.80
21	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	1	6.00
22	Cable End Termination Kit 11 kV XLPE 3c x 300 Sq.mm -Heat Shrinkable (Outdoor)	2565.00	E	4	10260.00
23	Cable Straight Joint Kit 11 kV XLPE 3c x 300 Sq.mm -Heat Shrinkable (Outdoor)	5522.00	E	2	11044.00
24	UG Cable Route Marker HT	173.00	E	20	3460.00
25	Pipe HDPE 110 mm	366.00	m	12	4392.00

26	Pole PSC 9 M	3908.00	E	3	11724.00
27	Clamp for 2/4 line channel Cross Arm for PSC Poles 200kg	78.80	E	6	472.80
28	Bolt& Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	kg	1.32	151.80
29	Cross Arm GI Channel 100X50 mm 2.4 M	2005.66	E	3	6016.98
30	Clamp GI for HT Cross Arm	173.65	E	2	347.30
<b>(a)</b>	<b>Cost of material</b>				<b>1472272.91</b>
(b)	Centage charges @16%				235563.67
	Expenditure on material				1707836.58
(c)	Cost of labour				844975.29
(d)	Cost of transportation				17828.00
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>862803.29</b>
(f)	Overhead charges on (c) &(d) above @10%				86280.33
(g)	Total (a +b +c +d +f)				2656920.19
	<b>Expenditure to be recovered</b>				<b>2656920.19</b>
	Expenditure to be recovered per metre				2656.92
	Rounded to				<b>2657.00</b>
<b>(Rupees Two thousand six hundred and fifty seven per metre only)</b>					
Road cutting, Restoration, PTCC Clearance and other charges extra.					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works for K.S.E.B.Ltd

Constructing 1 km 11 kV OH Line with ACSR Raccoon using A type Poles					
SI No	Description	Rate	UoM	Quantity	Amount
1	Pole A Type 12 M	18665.39	E	29	541296.31
2	Hardware Fittings 11kV B&S Type	197.00	E	36	7092.00
3	Disc Insulator 11 kV Composite Polymeric	119.00	E	36	4284.00
4	Composite Pin Insulator 11 kV with Pin	156.00	Set	69	10764.00
5	Channel cross arm GI 75x40x6mm 1.8M	1191.93	E	12	14303.16
6	Cleat GI for 11kV Disc insulator	97.07	E	36	3494.52
7	Clamp GI for 11kV line V cross arm	190.94	E	23	4391.62
8	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	2.3	264.50
9	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	31.5	3622.50
10	Bolt& Nut GI FT M 16 x 75	115.00	kg	10.08	1159.20
11	V cross arm GI 11 kV	1211.44	E	23	27863.12
12	Cantiliver Cross arm HT	1589.35	E	6	9536.10
13	Clamp GI for HT Cantiliver Cross arm	173.65	E	6	1041.90
14	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
15	GI Wire 6MM DIA 4 SWG	93.00	kg	96	8928.00
16	Channel cross arm GI 75 x 40 x 6 mm 2.4 mt	1589.35	E	12	19072.20
17	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	3	1222.83
18	Bolt & Nut GI HT 200mm x 19mm	115.00	kg	10.08	1159.20
19	Helically Formed Fitting -Distribution Top Tie for ACSR Raccoon	36.00	E	69	2484.00
20	Clamp GI for HT Cross Arm	173.65	E	6	1041.90
21	Fish Plate GI (GI Flat 260 x 50 x 8 mm)	209.00	E	6	1254.00
22	Stay Insulator Porcelain 11k V	40.00	E	27	1080.00
23	Anchor Plate 200 x 200 x 8 mm GI (HT Stay Plate GI)	572.00	E	27	15444.00
24	Stay Tightner HT	395.00	E	27	10665.00
25	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	108	8640.00
26	Stay Rod (Anchor Rod) GI 20 mm dia (HT Stay Rod)	405.00	E	27	10935.00
27	Helically formed Guy-Grip HT	91.00	E	162	14742.00

28	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	108	3240.00
29	Conductor ACSR Raccoon	65.00	m	3150	204750.00
30	G.I.Wire. 4MM (8 SWG)	81.00	kg	39	3159.00
31	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	8	8448.00
32	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	8	8072.00
33	Earth Connector 95 Sqmm	91.00	E	8	728.00
34	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.96	110.40
35	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	8	48.00
36	Earthing Coil GI 115 Turns 50 mm internal Dia dia	208.00	E	23	4784.00
37	Ferrules 5 Sq.mm(GI)	12.00	E	23	276.00
38	Stainless Steel Buckle Slot width 10.5 mm x 1.5 mm,Thickness 1.2 mm.	10.00	E	184	1840.00
39	SS strap for clamping earth wire	36.00	m	92	3312.00
<b>(a)</b>	<b>Cost of material</b>				<b>981254.46</b>
<b>(b)</b>	<b>Centage charges @16%</b>				<b>157000.71</b>
	Expenditure on material				1138255.17
<b>(c)</b>	<b>Cost of labour</b>				<b>303113.07</b>
<b>(d)</b>	<b>Cost of transportation</b>				<b>25138.08</b>
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>328251.15</b>
<b>(f)</b>	<b>Overhead charges on (c) &amp;(d) above @10%</b>				<b>32825.12</b>
<b>(g)</b>	<b>Total (a +b +c +d +f)</b>				<b>1499331.44</b>
	<b>Expenditure to be recovered</b>				<b>1499331.44</b>
	Expenditure to be recovered per metre				1499.33
	Rounded to				<b>1500.00</b>
<b>(Rupees One thousand five hundred per metre only)</b>					
1 Amount for PTCC clearance, if any, shall be collected extra.					
2 Tree cutting compensation based on actual expenditure shall be collected extra.					



**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Installation of 1 No. 11 KV/ 433 V , 100 KVA Transformer without stay (pole mounted )</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	Distribution Transformer 3 Phase 100 kVA 11kV/433 V ONAN	227681.00	E	1	227681.00
2	Cable 1.1kV XLPE AL 1c X 120 sq mm (Un Armoured)	99.00	m	35	3465.00
3	Crimping Socket Palm Type 120 Sq.mm -Al (Cable Lug)	15.00	E	12	180.00
4	Crimping Socket Palm Type 95 Sq.mm -Al (Cable Lug)	11.00	E	3	33.00
5	Pole PSC 9 M	3908.00	E	2	7816.00
6	Hardware Fittings 11kV B&S Type	197.00	E	3	591.00
7	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
8	Disc Insulator 11 kV Composite Polymeric	119.00	E	3	357.00
9	Composite Pin Insulator 11 kV with Pin	156.00	Set	3	468.00
10	G.I.Wire 4MM (8 SWG)	81.00	kg	30	2430.00
11	Channel cross arm GI 75x40x6mm 1.8M	1191.93	E	2	2383.86
12	Cross Arm GI Channel 100X50 mm 3 M	2985.75	E	7	20900.25
13	V cross arm GI 11 kV	1211.44	E	2	2422.88
14	Cleat GI for 11kV Disc insulator	97.07	E	3	291.21
15	Clamp GI for HT Cross Arm	173.65	E	6	1041.90
16	Clamp GI for 11kV line V cross arm	190.94	E	2	381.88
17	Pole Top Bracket -F Type GI -11 kV	154.00	E	1	154.00
18	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	4	1630.44
19	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	2	230.00
20	Fuse Drop Out 11 kV	1057.00	E	3	3171.00
21	Fuse Wire 200A	874.00	kg	0.1	87.40
22	Bolt& Nut GI 40mm x 16mm (1 1/2 x 5/8)	115.00	kg	0.12	13.80
23	Bolt& Nut GI HT 200mm x 19mm	115.00	kg	5.04	579.60
24	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	10.5	1207.50
25	Bolt& Nut GI FT M 16 x 75	115.00	kg	0.84	96.60
26	Bolt& Nut GI HT 300mm x 19mm	115.00	kg	5	575.00

## Annexure 32 contd.

27	Clamp GI For Transformer Side Belting Angle	198.95	No	2	397.90
28	Plate washer GI M16	115.00	kg	0.2	23.00
29	Distribution Box LT Outdoor 2 Way 200 A	23666.00	E	1	23666.00
30	Cable Tray GI (Perforated) 300 x 30 x 1.6mm-2.5 mt	1633.00	E	2	3266.00
31	Cable Tray GI 300mmX1.6 mm	1167.00	m	1	1167.00
32	Bolt& Nut GI M 12 x 90 (3 1/2"x 1/2")	115.00	kg	0.976	112.24
33	Plate Washer SS M12	115.00	kg	0.16	18.40
34	Copper Flat Strip 40 x 3 mm length 115mm	125.00	E	4	500.00
35	GI Flat Strip 40 x 6 mm	80.00	kg	14	1120.00
36	Crimping Socket Palm Type 50 Sq.mm -Al (Cable Lug)	6.00	E	15	90.00
37	SS strap for clamping earth wire	36.00	m	10	360.00
38	Conductor ACSR Rabbit	42.00	m	20	840.00
39	Earth Wire GI 7/9	73.00	kg	5	365.00
40	Bolt & Nut GI M 10 x 25 (1"x 3/8")	115.00	kg	0.08	9.20
41	Square Washer GI M10	16.67	No	1	16.67
42	Alkathene Pipe 50 mm	70.80	m	30	2124.00
43	Transformer Side Belting Angle	2873.00	No	2	5746.00
44	Spacer LT 4 line Composit (For Cable Tray)	215.00	E	15	3225.00
45	Clamp GI for Danger Board (HT)	93.00	No	1	93.00
46	Bolt & Nut GI M 6 x 25 (1"x 1/4")	115.00	kg	3	345.00
47	Danger Board 250 x 200 mm (11000 V)	92.00	E	1	92.00
48	Helically Formed Fitting -Distribution Top Tie for ACSR Raccoon	36.00	E	3	108.00
49	GI Flat Strip 25 x 3 mm	98.00	m	2.4	235.20
50	LA Supporting Plate GI 500 x 300 x 3 mm	112.00	kg	3	336.00
51	Angle cross arm GI 35 x 35 x 6 mm 0.5 mt	685.00	E	6	4110.00
52	Lightning Arrester 9 kV,10 KA (Station class) Composite Polymer Housing	2028.00	E	3	6084.00
53	Stainless steel Buckles [20.5 mm x 1.5 mm; thickness 1.2 mm]	6.00	E	20	120.00
54	Clamp GI for Cable Tray in Transformer DP	472.00	E	6	2832.00
55	CT Resin Cast 0.415KV 10VA Class 0.5 200/5A	0.00	E	4	0.00
56	EM 3X 230V CLASS 0.5S --/5A LCD(DTR /LT CT Meter)	0.00	E	1	0.00

57	Meter Box For Distribution Transformer With Clamps (FRP)	2953.00	E	1	2953.00
58	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	5	5280.00
59	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	5	5045.00
60	Earth Connector 95 Sqmm	91.00	E	5	455.00
61	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.6	69.00
<b>(a)</b>	<b>Cost of material</b>				<b>366097.93</b>
(b)	Centage charges @16%				58575.67
	Expenditure on material				424673.60
(c)	Cost of labour				55196.94
(d)	Cost of transportation				4713.39
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>59910.33</b>
(f)	Overhead charges on (c) &(d) above @10%				5991.03
(g)	Total (a +b +c +d +f)				490574.96
	Expenditure to be recovered				490574.96
	Rounded to				<b>490575.00</b>
<b>(Rupees Four lakh ninety thousand five hundred and seventy five only)</b>					
Note 1: If transformer fencing as per standards is provided, an amount of Rs.38153/- can be collected extra					
Note 2: If transformer yard is constructed as per standards, an amount of Rs.23075/- can be collected extra					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
Cost Data of Distribution works for K.S.E.B.Ltd

<b>Installation of 1 No. 11 KV/ 433 V , 160 KVA Transformer without stay (pole mounted)</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	Distribution Transformer 3 Phase 160 kVA 11kV/433 V ONAN (1 Star Rated)	342554.00	E	1	342554.00
2	Cable 1.1kV XLPE AL 1c X 120 sq mm (Un Armoured)	99.00	m	35	3465.00
3	Crimping Socket Palm Type 120 Sq.mm -Al (Cable Lug)	15.00	E	12	180.00
4	Crimping Socket Palm Type 95 Sq.mm -Al (Cable Lug)	11.00	E	3	33.00
5	Pole PSC 9 M	3908.00	E	2	7816.00
6	Hardware Fittings 11kV B&S Type	197.00	E	3	591.00
7	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
8	Disc Insulator 11 kV Composite Polymeric	119.00	E	3	357.00
9	Composite Pin Insulator 11 kV with Pin	156.00	Set	3	468.00
10	G.I.WIRE. 4MM (8 SWG)	81.00	kg	30	2430.00
11	Channel cross arm GI 75x40x6mm 1.8M	1191.93	E	2	2383.86
12	Cross Arm GI Channel 100X50 mm 3 M	2985.75	E	7	20900.25
13	V cross arm GI 11 kV	1211.44	E	2	2422.88
14	Cleat GI for 11kV Disc insulator	97.07	E	3	291.21
15	Clamp GI for HT Cross arm	173.65	E	6	1041.90
16	Clamp GI for 11kV line V cross arm	190.94	E	2	381.88
17	Pole Top Bracket -F Type GI -11 kV	154.00	E	1	154.00
18	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	4	1630.44
19	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	2	230.00
20	Fuse Drop out 11 kV	1057.00	E	3	3171.00
21	Fuse Wire 200A	874.00	kg	0.1	87.40
22	Bolt& Nut GI 40mm x 16mm (1 1/2 x 5/8)	115.00	kg	0.12	13.80
23	Bolt& Nut GI HT 200mm x 19mm	115.00	kg	5.04	579.60
24	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	10.5	1207.50
25	Bolt& Nut GI FT M 16 x 75	115.00	kg	0.84	96.60
26	Bolt& Nut GI HT 300mm x 19mm	115.00	kg	5	575.00

## Annexure 33 contd.

27	Clamp GI For Transformer Side Belting Angle	198.95	No	2	397.90
28	Plate washer GI M16	115.00	kg	0.2	23.00
29	Distribution Box LT Outdoor 2 Way 200 A	23666.00	E	1	23666.00
30	Cable Tray GI (Perforated) 300 x 30 x 1.6mm-2.5 mt	1633.00	E	2	3266.00
31	Cable Tray GI 300mmX1.6 mm	1167.00	m	1	1167.00
32	Bolt& Nut GI M 12 x 90 (3 1/2"x 1/2")	115.00	kg	0.976	112.24
33	Plate Washer SS M12	115.00	kg	0.16	18.40
34	Copper Flat Strip 40 x 3 mm length 115mm	125.00	E	4	500.00
35	GI Flat Strip 40 x 6 mm	80.00	kg	14	1120.00
36	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	15	90.00
37	SS strap for clamping earth wire	36.00	m	10	360.00
38	Conductor ACSR Rabbit	42.00	m	20	840.00
39	Earth Wire GI 7/9	73.00	kg	5	365.00
40	Bolt & Nut GI M 10 x 25 (1"x 3/8")	115.00	kg	0.08	9.20
41	Square Washer GI M10	16.67	No	1	16.67
42	Alkathene Pipe 50 mm	70.80	m	30	2124.00
43	Transformer Side Belting Angle	2873.00	No	2	5746.00
44	Spacer LT 4 line Composit (For Cable Tray)	215.00	E	15	3225.00
45	Clamp GI for Danger Board (HT)	93.00	No	1	93.00
46	Bolt & Nut GI M 6 x 25 (1"x 1/4")	115.00	kg	3	345.00
47	Danger Board 250 x 200 mm (11000 V)	92.00	E	1	92.00
48	Helically Formed Fitting -Distribution Top Tie for ACSR Raccoon	36.00	E	3	108.00
49	GI Flat Strip 25 x 3 mm	98.00	m	2.4	235.20
50	LA Supporting Plate GI 500 x 300 x 3 mm	112.00	kg	3	336.00
51	Angle cross arm GI 35 x 35 x 6 mm 0.5 mt	685.00	E	6	4110.00
52	Lightning Arrester 9 kV,10 KA (Station class) Composite Polymer Housing	2028.00	E	3	6084.00
53	Stainless steel Buckles [20.5 mm x 1.5 mm; thickness 1.2 mm]	6.00	E	20	120.00
54	Clamp GI for Cable Tray in Transformer DP	472.00	E	6	2832.00
55	CT Resin Cast 0.415KV 15VA Class 0.5 300/5A	0.00	E	4	0.00
56	EM 3X 230V CLASS 0.5S --/5A LCD(DTR /LT CT METER)	0.00	E	1	0.00

57	Meter Box For Distribution Transformer With Clamps (FRP)	2953.00	E	1	2953.00
58	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	5	5280.00
59	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	5	5045.00
60	Earth Connector 95 Sqmm	91.00	E	5	455.00
61	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.6	69.00
<b>(a)</b>	<b>Cost of material</b>				<b>480970.93</b>
(b)	Centage charges @16%				76955.35
	Expenditure on material				557926.28
(c)	Cost of labour				55437.39
(d)	Cost of transportation				4713.39
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>60150.78</b>
(f)	Overhead charges on (c) &(d) above @10%				6015.08
(g)	Total (a +b +c +d +f)				624092.14
	Expenditure to be recovered				624092.14
	Rounded to				<b>624092.00</b>
<b>(Rupees Six lakh twenty four thousand and ninety two only)</b>					
Note 1: If transformer fencing as per standards is provided, an amount of Rs.38153/- can be collected extra					
Note 2: If transformer yard is constructed as per standards, an amount of Rs.23075/- can be collected extra					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
Cost Data of Distribution works for K.S.E.B.Ltd

Installation of 1 No. 11KV/ 433V 250 KVA Transformer					
SI No	Description	Rate	UoM	Quantity	Amount
1	Distribution Transformer 3 Phase 250 kVA 11kV/433 V ONAN	453592.00	E	1	453592.00
2	Cable 1.1kV XLPE AL 1c X 120 sq mm (Un Armoured)	99.00	m	35	3465.00
3	Crimping Socket Palm Type 120 Sq.mm -Al (Cable Lug)	15.00	E	12	180.00
4	Crimping Socket Palm Type 95 Sq.mm -Al (Cable Lug)	11.00	E	3	33.00
5	Pole PSC 9 M	3908.00	E	2	7816.00
6	Hardware Fittings 11kV B&S Type	197.00	E	3	591.00
7	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
8	Disc Insulator 11 kV Composite Polymeric	119.00	E	3	357.00
9	Composite Pin Insulator 11 kV with Pin	156.00	Set	3	468.00
10	G.I.Wire. 4MM (8 SWG)	81.00	kg	30	2430.00
11	Channel cross arm GI 75x40x6mm 1.8M	1191.93	E	2	2383.86
12	Cross Arm GI Channel 100X50 mm 3 M	2985.75	E	7	20900.25
13	V cross arm GI 11 kV	1211.44	E	2	2422.88
14	Cleat GI for 11kV Disc insulator	97.07	E	3	291.21
15	Clamp GI for HT Cross arm	173.65	E	6	1041.90
16	Clamp GI for 11kV line V cross arm	190.94	E	2	381.88
17	Pole Top Bracket -F Type GI -11 kV	154.00	E	1	154.00
18	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	4	1630.44
19	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	2	230.00
20	Fuse drop out 11 kV	1057.00	E	3	3171.00
21	Fuse Wire 200A	874.00	kg	0.1	87.40
22	Bolt& Nut GI 40mm x 16mm (1 1/2 x 5/8)	115.00	kg	0.12	13.80
23	Bolt& Nut GI HT 200mm x 19mm	115.00	kg	5.04	579.60
24	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	10.5	1207.50
25	Bolt& Nut GI FT M 16 x 75	115.00	kg	0.84	96.60
26	Bolt& Nut GI HT 300mm x 19mm	115.00	kg	5	575.00

## Annexure 34 contd.

27	Clamp GI For Transformer Side Belting Angle	198.95	No	2	397.90
28	Plate washer GI M16	115.00	kg	0.2	23.00
29	Distribution Box LT Outdoor 2 Way 200 A	23666.00	E	1	23666.00
30	Cable Tray GI (Perforated) 300 x 30 x 1.6mm-2.5 mt	1633.00	E	2	3266.00
31	Cable Tray GI 300mmX1.6 mm	1167.00	m	1	1167.00
32	Bolt& Nut GI M 12 x 90 (3 1/2"x 1/2")	115.00	kg	0.976	112.24
33	Plate Washer SS M12	115.00	kg	0.16	18.40
34	Copper Flat Strip 40 x 3 mm length 115mm	125.00	E	4	500.00
35	GI Flat Strip 40 x 6 mm	80.00	kg	14	1120.00
36	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	15	90.00
37	SS strap for clamping earth wire	36.00	m	10	360.00
38	Conductor ACSR Rabbit	42.00	m	20	840.00
39	Earth Wire GI 7/9	73.00	kg	5	365.00
40	Bolt & Nut GI M 10 x 25 (1"x 3/8")	115.00	kg	0.08	9.20
41	Square Washer GI M10	16.67	No	1	16.67
42	Alkathene Pipe 50 mm	70.80	m	30	2124.00
43	Transformer Side Belting Angle	2873.00	No	2	5746.00
44	Spacer LT 4 line Composit (For Cable Tray)	215.00	E	15	3225.00
45	Clamp GI for Danger Board (HT)	93.00	No	1	93.00
46	Bolt & Nut GI M 6 x 25 (1"x 1/4")	115.00	kg	3	345.00
47	Danger Board 250 x 200 mm (11000 V)	92.00	E	1	92.00
48	Helically Formed Fitting -Distribution Top Tie for ACSR Raccoon	36.00	E	3	108.00
49	GI Flat Strip 25 x 3 mm	98.00	m	2.4	235.20
50	LA Supporting Plate GI 500 x 300 x 3 mm	112.00	kg	3	336.00
51	Angle cross arm GI 35 x 35 x 6 mm 0.5 mt	685.00	E	6	4110.00
52	Lightning Arrester 9 kV,10 KA (Station class) Composite Polymer Housing	2028.00	E	3	6084.00
53	Stainless steel Buckles [20.5 mm x 1.5 mm; thickness 1.2 mm]	6.00	E	20	120.00
54	Clamp GI for Cable Tray in Transformer DP	472.00	E	6	2832.00
55	Stay Insulator Porcelain 11k V	40.00	E	4	160.00
56	Stay Tightner HT	395.00	E	2	790.00



57	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	14	1120.00
58	Stay Rod (Anchor Rod) GI 20 mm dia (HT Stay Rod)	405.00	E	2	810.00
59	Helically formed Guy-Grip HT	91.00	E	16	1456.00
60	Anchor Plate 200 x 200 x 8 mm GI (HT Stay Plate GI)	572.00	E	2	1144.00
61	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	8	240.00
62	CT Resin Cast 0.415kV 15VA Class 0.5 400/5A	0.00	E	4	0.00
63	EM 3X 230V CLASS 0.5S --/5A LCD(DTR /LT CT Meter)	0.00	E	1	0.00
64	Meter Box For Distribution Transformer With Clamps (FRP)	2953.00	E	1	2953.00
65	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	5	5280.00
66	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	5	5045.00
67	Earth Connector 95 Sqmm	91.00	E	5	455.00
68	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.6	69.00
<b>(a)</b>	<b>Cost of material</b>				<b>597728.93</b>
(b)	Centage charges @16%				95636.63
	Expenditure on material				693365.56
(c)	Cost of labour				103129.60
(d)	Cost of transportation				3142.26
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp; d)</b>				<b>106271.86</b>
(f)	Overhead charges on (c) &(d) above @10%				10627.19
(g)	Total (a +b +c +d +f)				810264.60
	Expenditure to be recovered				810264.60
	Rounded to				<b>810265.00</b>
<b>(Rupees Eight lakh ten thousand two hundred and sixty five only)</b>					
Note 1:If transformer fencing as per standards is provided, an amount of Rs.38153/- can be collected extra					
Note 2:If transformer yard is constructed as per standards, an amount of Rs.23075/- can be collected extra					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
Cost Data of Distribution works for K.S.E.B.Ltd

<b>Installation of Data Acquisition compatible Extensible type Ring Main Unit without VCB -CCC (E) (Cable -Cable -Cable )</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	RMU 11kV 630 A CCC(E) -(CCC+) or (RRR+)	621860.00	E	1	621860.00
2	CROSS ARM GI CHANNEL 100X50 mm 3 M	2985.75	E	1	2985.75
3	Cable 11kV XLPE AL UG 3c X300 sq mm (Armoured)	1316.00	m	15	19740.00
4	GI STRIP 32X6	91.00	kg	16	1456.00
5	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	2	2112.00
6	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	2	2018.00
7	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.24	27.60
8	Cable End Termination Kit 11 kV XLPE 3c x 300 Sq.mm -Heat Shrinkable (In door)	1599.00	E	3	4797.00
<b>(a)</b>	<b>Cost of material</b>				<b>654996.35</b>
(b)	Centage charges @16%				104799.42
	Expenditure on material				759795.77
(c)	Cost of labour				76861.56
(d)	Cost of transportation				3142.26
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>80003.82</b>
(f)	Overhead charges on (c) &(d) above @10%				8000.38
(g)	Total (a +b +c +d +f)				847799.97
	Expenditure to be recovered				847799.97
	Rounded to				<b>847800.00</b>
<b>(Rupees Eight lakh forty seven thousand eight hundred only)</b>					
Note 1: If RMU fencing as per standards is provided, an amount of Rs.38153/- can be collected extra					
Note 2: If RMU yard is constructed as per standards, an amount of Rs.11538/- can be collected extra					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Installation of Data Acquisition compatible Extensible type Ring Main Unit with VCB -CTC (E) (Cable -Transformer -Cable )</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	RMU 11kV 630 A CTC(E) + DA-(CCV+ +DA) or (RRL + +DA)	678500.00	E	1	678500.00
2	Cross arm GI Channel 100X50 mm 3 M	2985.75	E	1	2985.75
3	Cable End Termination Kit 11 kV XLPE 3c x 185 Sq.mm -Heat Shrinkable (Outdoor)	2714.00	E	2	5428.00
4	Cable 11kV XLPE AL UG 3c X185 sq mm (Armoured)	1298.00	m	5	6490.00
5	GI Strip 32X6	91.00	kg	16	1456.00
6	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	2	2112.00
7	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	2	2018.00
8	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.24	27.60
9	Cable End Termination Kit 11 kV XLPE 3c x 300 Sq.mm -Heat Shrinkable (In door)	1599.00	E	3	4797.00
<b>(a)</b>	<b>Cost of material</b>				<b>703814.35</b>
(b)	Centage charges @16%				112610.30
	Expenditure on material				816424.65
(c)	Cost of labour				64849.41
(d)	Cost of transportation				3142.26
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>67991.67</b>
(f)	Overhead charges on (c) &(d) above @10%				6799.17
(g)	Total (a +b +c +d +f)				891215.48
	Expenditure to be recovered				891215.48
	Rounded to				<b>891215.00</b>
<b>(Rupees Eight lakh ninety one thousand two hundred and fifteen only)</b>					
Note 1: If RMU fencing as per standards is provided, an amount of Rs.38153/- can be collected extra					
Note 2: If RMU yard is constructed as per standards, an amount of Rs.11538/- can be collected extra					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Installation of Data Acquisition compatible Extensible add-on type Ring Main Unit without VCB (Single Switch C-Extension)</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quant ity</b>	<b>Amount</b>
1	RMU 11kV 630 A C(E) + DA-(C+DA) or (R+DA)	341632.00	E	1	341632.00
2	Cross arm GI Channel 100X50 mm 3 M	2985.75	E	1	2985.75
3	GI Strip 32X6	91.00	kg	8	728.00
4	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	1	1056.00
5	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	1	1009.00
6	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.12	13.80
7	Cable End Termination Kit 11 kV XLPE 3c x 300 Sq.mm -Heat Shrinkable (In door)	1599.00	E	1	1599.00
<b>(a)</b>	<b>Cost of material</b>				<b>349023.55</b>
(b)	Centage charges @16%				55843.77
	Expenditure on material				404867.32
(c)	Cost of labour				19617.95
(d)	Cost of transportation				3142.26
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>22760.21</b>
(f)	Overhead charges on (c) &(d) above @10%				2276.02
(g)	Total (a +b +c +d +f)				429903.55
	Expenditure to be recovered				429903.55
	Rounded to				<b>429904.00</b>
<b>(Rupees Four lakh twenty nine thousand nine hundred and four only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Installation of Data Acquisition compatible, Extensible, add-on type Ring Main Unit with VCB (Single Switch T-Extension)</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	RMU 11kV 630 A T (E) + DA-(V+DA) or (L+DA)	437849.00	E	1	437849.00
2	Cross arm GI Channel 100X50 mm 3 M	2985.75	E	1	2985.75
3	Cable End Termination Kit 11 kV XLPE 3c x 185 Sq.mm -Heat Shrinkable (Outdoor)	2714.00	E	2	5428.00
4	Cable 11kV XLPE AL UG 3c X185 sq mm (Armoured)	1298.00	m	5	6490.00
5	GI Strip 32X6	91.00	kg	16	1456.00
6	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	2	2112.00
7	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	2	2018.00
8	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.24	27.60
<b>(a)</b>	<b>Cost of material</b>				<b>458366.35</b>
(b)	Centage charges @16%				73338.62
	Expenditure on material				531704.97
(c)	Cost of labour				23863.54
(d)	Cost of transportation				3142.26
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>27005.80</b>
(f)	Overhead charges on (c) &(d) above @10%				2700.58
(g)	Total (a +b +c +d +f)				561411.35
	Expenditure to be recovered				561411.35
	Rounded to				<b>561411.00</b>
<b>(Rupees Five lakh sixty one thousand four hundred and eleven only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Installation of Data Acquisition compatible Extensible type Ring Main Unit with provision for isolation and earthing facility on both sides (gCCg)</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	RMU 11kV 630 A gCg -SCADA Compatible	402648.00	E	1	402648.00
2	Cross arm GI Channel 100X50 mm 3 M	2985.75	E	1	2985.75
3	GI Strip 32X6	91.00	kg	16	1456.00
4	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	2	2112.00
5	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	2	2018.00
6	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.24	27.60
7	Cable End Termination Kit 11 kV XLPE 3c x 300 Sq.mm -Heat Shrinkable (In door)	1599.00	E	3	4797.00
<b>(a)</b>	<b>Cost of material</b>				<b>416044.35</b>
(b)	Centage charges @16%				66567.10
	Expenditure on material				482611.45
(c)	Cost of labour				45889.18
(d)	Cost of transportation				3142.26
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>49031.44</b>
(f)	Overhead charges on (c) &(d) above @10%				4903.14
(g)	Total (a +b +c +d +f)				536546.03
	Expenditure to be recovered				536546.03
	Rounded to				<b>536546.00</b>
	<b>Rupees Five lakh thirty six thousand five hundred and forty six</b>				
<p>Note 1: If RMU fencing as per standards is provided, an amount of Rs.38153/- can be collected extra            Note 2: If RMU yard is constructed as per standards, an amount of Rs.11538/- can be collected extra</p>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Drawing 1 km of HT ABC of size 3X150 + 1X120 sqmm using 9 M PSC Pole</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
2	GI Wire 6MM DIA 4 SWG	93.00	kg	12	1116.00
3	Channel cross arm GI 75 x 40 x 6 mm 2.4 mt	1589.35	E	9	14304.15
4	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	3	1222.83
5	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	1.5	172.50
6	Bolt& Nut GI HT 200mm x 19mm	115.00	kg	7.56	869.40
7	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	10.5	1207.50
8	Pole PSC 9 M	3908.00	E	38	148504.00
9	Clamp GI for HT Cross arm	173.65	E	4	694.60
10	Stay Insulator Porcelain 11k V	40.00	E	29	1160.00
11	Stay tightner HT	395.00	E	28	11060.00
12	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	113.6	9088.00
13	Stay Rod (Anchor Rod) GI 20 mm dia (HT Stay Rod)	405.00	E	28	11340.00
14	Helically formed Guy-Grip HT	91.00	E	168	15288.00
15	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	112	3360.00
16	Anchor Plate 200 x 200 x 8 mm GI (HT Stay Plate GI)	572.00	E	27	15444.00
17	Earthing Coil GI 115 Turns 50 mm internal Dia dia	208.00	E	33	6864.00
18	Ferrules 5 Sq.mm(GI)	12.00	E	33	396.00
19	G.I.WIRE. 4MM (8 SWG)	81.00	kg	41	3321.00
20	Stainless Steel Buckle Slot width 10.5 mm x 1.5 mm,Thickness 1.2 mm.	10.00	E	264	2640.00
21	SS strap for clamping earth wire	36.00	m	132	4752.00
22	Termination Kit(3 Nos) for HT ABC 150 Sq.mm	1878.00	Set	6	11268.00
23	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	4	4224.00
24	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	4	4036.00
25	Earth Connector 95 Sqmm	91.00	E	4	364.00
26	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.48	55.20

27	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	4	24.00
28	Aerial Bunched Cable HT 3x150 + 1x120 sq.mm (Insulated Messenger)	1117.77	m	1106	1236253.62
29	Lightning Arrester 9 kV,10 KA (Station class) Composite Polymer Housing	2028.00	E	6	12168.00
30	Cable Tie UV Plastic Heavy Duty 500 mm Length	4.00	No	20	80.00
31	Stainless Steel Strap [20 mm x 0.7 mm]	36.00	m	43	1548.00
32	Stainless steel Buckles [20.5 mm x 1.5 mm; thickness 1.2 mm]	6.00	E	86	516.00
33	Suspension Clamp Assembly for HT AB Cables up to 150 sq.mm	416.00	E	27	11232.00
34	Anchoring /Dead end Clamp Assembly for HT AB Cables up to 150 sq.mm	571.00	E	16	9136.00
<b>(a)</b>	<b>Cost of material</b>				<b>1560414.80</b>
(b)	Centage charges @16%				249666.37
	Expenditure on material				1810081.17
(c)	Cost of labour				315670.13
(d)	Cost of transportation				27494.78
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>343164.91</b>
(f)	Overhead charges on (c) &(d) above @10%				34316.49
(g)	Total (a +b +c +d +f)				2187562.57
	Expenditure to be recovered				2187562.57
	Expenditure to be recovered per metre				2187.56
	Rounded to				<b>2188.00</b>
<b>(Rupees Two thousand one hundred and eighty eight only)</b>					



**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

Cost Data of Distribution works for K.S.E.B.Ltd

<b>Drawing 1 km of HT ABC of size 3X120 + 1X95 sqmm using 9 M PSC Pole</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	Air Break Switch (AB Switch) 11kV 400 A , Composite Polymer Housing	16706.00	E	1	16706.00
2	GI WIRE 6MM DIA 4 SWG	93.00	kg	12	1116.00
3	Channel cross arm GI 75 x 40 x 6 mm 2.4 mt	1589.35	E	9	14304.15
4	Channel Cross arm for LT 2 Pin -GI 75 x 40 x 6 mm-0.510 mt (2 line Cross arm)	407.61	E	3	1222.83
5	Bolt & Nut GI FT M 12 x 150 (6"x 1/2")	115.00	kg	1.5	172.50
6	Bolt & Nut GI HT 200mm x 19mm	115.00	kg	7.56	869.40
7	Bolt& Nut GI M 20 x 250 (9 3/4"x3/4")	115.00	kg	10.5	1207.50
8	Pole PSC 9 M	3908.00	E	38	148504.00
9	Clamp GI for HT Cross arm	173.65	E	4	694.60
10	Stay Insulator Porcelain 11k V	40.00	E	29	1160.00
11	Anchor Plate 200 x 200 x 8 mm GI (HT Stay Plate GI)	572.00	E	27	15444.00
12	Stay Tightner HT	395.00	E	28	11060.00
13	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	113.6	9088.00
14	Stay Rod (Anchor Rod) GI 20 mm dia (HT Stay Rod)	405.00	E	28	11340.00
15	Helically formed Guy-Grip HT	91.00	E	168	15288.00
16	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	112	3360.00
17	Aerial Bunched Cable HT 3x120 + 1x95 sq.mm (Insulated Messenger)	1000.21	m	1105	1105232.05
18	Earthing Coil GI 115 Turns 50 mm internal Dia dia	208.00	E	33	6864.00
19	Ferrules 5 Sq.mm(GI)	12.00	E	33	396.00
20	G.I.WIRE. 4MM (8 SWG)	81.00	kg	41	3321.00
21	Stainless Steel Buckle Slot width 10.5 mm x 1.5 mm,Thickness 1.2 mm.	10.00	E	264	2640.00
22	SS strap for clamping earth wire	36.00	m	132	4752.00
23	MVT Kit For HT ABC	3852.00	E	1	3852.00
24	Heat Shrinkable Termination Kit (3 Nos) for 120 Sq.mm Three phase Aerial Bunched Cable	1009.00	Set	4	4036.00
25	Stainless Steel Strap [20 mm x 0.7 mm]	36.00	m	43	1548.00
26	Stainless steel Buckles [20.5 mm x 1.5 mm; thickness 1.2 mm]	6.00	E	86	516.00

27	Anchoring /Dead end Clamp Assembly for HT AB Cables up to 120 sq.mm	468.00	E	16	7488.00
28	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	4	4224.00
29	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	4	4036.00
30	Earth Connector 95 Sqmm	91.00	E	4	364.00
31	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.48	55.20
32	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	4	24.00
33	Cable Tie UV Plastic Heavy Duty 500 mm Length	4.00	No	20	80.00
34	Suspension Clamp Assembly for HT AB Cables up to 120 sq.mm	316.00	E	27	8532.00
<b>(a)</b>	<b>Cost of material</b>				<b>1409497.23</b>
(b)	Centage charges @16%				225519.56
	Expenditure on material				1635016.79
(c)	Cost of labour				308644.13
(d)	Cost of transportation				27494.78
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>336138.91</b>
(f)	Overhead charges on (c) &(d) above @10%				33613.89
(g)	Total (a +b +c +d +f)				2004769.59
	Expenditure to be recovered				2004769.59
	Expenditure to be recovered per metre				2004.76
	Rounded to				<b>2005.00</b>
<b>(Rupees Two thousand and five only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
Cost Data of Distribution works for K.S.E.B.Ltd

<b>Drawing 1 km of LT ABC of size 3X70 + 1X50 +1X16 sqmm using 8 M PSC Pole</b>					
<b>SI No</b>	<b>Description</b>	<b>Rate</b>	<b>UoM</b>	<b>Quantity</b>	<b>Amount</b>
1	End Cap for ABC 50 Sq mm	7.00	E	2	14.00
2	End Cap for ABC 16 Sq mm	5.00	E	2	10.00
3	Anchoring /Dead end Clamp Assembly for LT AB Cables up to 70 sq.mm	281.00	E	18	5058.00
4	End Cap for ABC 70 Sq mm	5.00	E	6	30.00
5	Stainless Steel Buckle Slot width 20.5 mm x 1.5 mm, Thickness 1.2 mm.	9.00	E	68	612.00
6	Stainless Steel Strap 20 mm x 0.7 mm	31.00	m	26	806.00
7	Cable Tie UV Plastic Heavy Duty 500 mm Length	4.00	E	20	80.00
8	Pole PSC 8 M	3364.18	E	37	124474.66
9	Stay Insulator Porcelain 415/240 V	15.00	E	35	525.00
10	Clamp GI for LT Stay for Angular location	240.99	E	34	8193.66
11	Anchor Plate 200 x 200 x 6 mm GI (LT Stay Plate GI)	228.00	E	34	7752.00
12	Stay Tightner LT	251.00	E	34	8534.00
13	Stay Rod (Anchor Rod) GI 16 mm dia (LT Stay Rod)	284.00	E	34	9656.00
14	Stay Wire 7/8 (7/3.15mm) GI (HT Stay Wire)	80.00	kg	88	7040.00
15	Helically formed Guy-Grip HT	91.00	E	6	546.00
16	Helically formed Guy-Grip LT	80.00	E	204	16320.00
17	Thimble GI 75 mm x 22 mm x 40 mm ,1.5 mm Thickness (For HT and LT)	30.00	E	136	4080.00
18	Clamp GI For 8 mt Strut Pole (For Pole)	103.25	E	6	619.50
19	Bolt& Nut GI M 12 x 65 (2 1/2"x 1/2")	115.00	kg	0.99	113.85
20	Clamp GI For 8 mt Strut Pole (For Strut)	103.25	No	6	619.50
21	Earthing Coil GI 115 Turns 50 mm internal Dia dia	208.00	E	8	1664.00
22	Ferrules 5 Sq.mm(GI)	12.00	E	8	96.00
23	G.I.wire 4 mm(8 SWG)	81.00	kg	12	972.00
24	Stainless Steel Buckle Slot width 10.5 mm x 1.5 mm, Thickness 1.2 mm.	10.00	E	64	640.00
25	SS strap for clamping earth wire	36.00	m	32	1152.00
26	Aerial Bunched Cable LT 3x70 + 1x50 + 1x16 sq.mm (Insulated Messenger)	280.00	m	1100	308000.00

27	Suspension Clamp Assembly for LT AB Cables up to 70 sq.mm	222.00	E	24	5328.00
28	Pre-Insulated Midspan Joints and Terminal Lugs 16 Sq.mm	93.00	E	3	279.00
29	Pre-Insulated Midspan Joints and Terminal Lugs 50 Sq.mm	91.00	E	3	273.00
30	Pre-Insulated Midspan Joints and Terminal Lugs 70 Sq.mm	77.00	E	12	924.00
31	Pipe GI 40 mm dia -2.5 m Length( Earth Pipe)	1056.00	E	2	2112.00
32	Earth Chamber (PVC) With RCC Covering Slab	1009.00	E	2	2018.00
33	Earth Connector 95 Sqmm	91.00	E	2	182.00
34	Bolt & Nut GI M 16 x 40 (1 1/2"x 5/8")	115.00	kg	0.24	27.60
35	Crimping Socket Palm Type 50 Sq.mm -Al(Cable Lug)	6.00	E	2	12.00
36	Insulation Piercing Connector (IPC Connector) Main 16 sq mm to 95 sq mm; Tap 4 sq.mm to 50 sq mm	64.00	E	8	512.00
<b>(a)</b>	<b>Cost of material</b>				<b>519275.77</b>
(b)	Centage charges @16%				83084.12
	Expenditure on material				602359.89
(c)	Cost of labour				190818.84
(d)	Cost of transportation				5784.62
<b>(e)</b>	<b>Cost of labour &amp; transportation sub- total (c &amp;d)</b>				<b>196603.46</b>
(f)	Overhead charges on (c) &(d) above @10%				19660.35
(g)	Total (a +b +c +d +f)				818623.70
	Expenditure to be recovered				818623.70
	Expenditure to be recovered per metre				818.62
	Rounded to				<b>819.00</b>
<b>(Rupees Eight hundred and nineteen only)</b>					

**Specification and estimate for fencing and construction of yard for Transformers and RMUs**

SI No	Description	Rate	UoM	Quantity	Amount
1	<p><b><u>Fencing for transformers and RMUs</u></b>                      Providing Transformer/RMU fencing to a height of 1.8 m above ground level using MS Angle frames of size ISA 50x50x6mm for outer frame, 2 runs of 40x6 MS flat for horizontal bracing and grills with MS rods 8 mm Dia @ 10cm c/c for verticals, providing gate with locking arrangements, providing danger board &amp; name board, embedding the legs in cement concrete 1:2:4, footing of size 30cmx30cmx50cm, painting with synthetic enamel paint two coats over one coat of iron primer etc complete, incl cost of transportation</p>	1589.72	sq.m	24	38153.00
2	<p><b><u>Construction of yard for transformers</u></b>                      Cleaning and levelling of transformer yard, 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.</p>	769.18	sq.m	30	23075.00
3	<p><b><u>Construction of yard for RMUs</u></b>                      Cleaning and levelling of RMU yard, 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.</p>	769.18	sq.m	15	11538.00