

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

**THIRUVANANTHAPURAM**

**O.A. No. 12 of 2015**

**Present : Sri. T. M. Manoharan, Chairman  
Sri. K. Vikraman Nair, Member  
Sri. S. Venugopal, Member**

**In the matter of approval of the cost data of the rates of materials and labour for the distribution works for the year 2016-17.**

Petitioner : **M/s. K.S.E.B.Ltd.,**  
Thiruvananthapuram

**Order dated 20- 05- 2016**

1. Kerala State Electricity Board Limited (herein after referred to as the applicant or K.S.E.B. Ltd) has submitted an application, as per the provisions of KSERC (Conduct of Business) Regulations, 2003, for the approval of the cost data of the rates of materials and labour for the distribution works for the year 2015-16 for the recovery of expenditure under Section 46 of the Electricity Act 2003.

**Proceedings of the Commission and Public Hearing**

2. The application filed by K.S.E.B. Ltd on 7.4.2015 was admitted as OA No 12/2015. The abstract of the application was published in the website of the Commission and of the applicant. Wide publicity was given to the application through the following newspapers, Madhyamam and Malayala Manorama. Public hearing was conducted on 05.06.2015 in Y.M.C.A. Hall, Chittoor Road, Eranakulam.

3. K.S.E.B.Ltd. submitted that the petition is filed as per Regulation 33 (1) of Kerala Electricity Supply Code, 2014 wherein it is specified that the licensee shall submit once in a year, a proposal to the Commission for approval of the cost data of the rate of materials and work at which the expenditure as per Section 46 of the Electricity Act, 2003 is to be recovered. The Commission had approved the rates for distribution works for the year 2014-15 vide order dated 28-02-2014 in OP 30/2013 which came into force with effect from 01-05-2014. The annual inflation rates during 2013-14 and 2014-15 (up to January 2015) were 9.72 % and 6.3% (provisional) respectively. The inflationary trend in the economy has its impact on all input costs like labour and material.
4. K.S.E.B. Ltd further submitted that the method followed in preparing estimate for the year 2015-16 is almost in line with the estimates approved for the financial year 2014-15, except the following:
  - (i) Cost of labour: Earlier the Kerala PWD Schedule of Rates (SOR) were followed for computing the cost of labour while preparing estimates. It is submitted that the Govt. of Kerala has directed vide Order dated 17-04-2013 to adopt the CPWD data and schedule of rates in State Government departments with effect from 01-10-2013. Hence the estimates are revised in accordance with the CPWD SOR 2014. The rate of items applicable to Delhi is proposed in the SOR 2014 and these rates, multiplied by the cost index provided for various places, give the rates of items for the corresponding places. The average cost index for Kerala is worked out as 1.4 and the rates in CPWD SOR 2014 multiplied by 1.4 is considered for the preparation of estimate rates. The basic labour data for distribution work has been revised based on field reality, resulting in an average reduction of 10%.
  - (ii) Cost of materials: Weighted average costs of materials purchased during 2013-14 were taken for arriving cost of materials. For materials with variable rates, for which tenders were invited, like ACSR conductors, distribution transformers, 3x300 mm<sup>2</sup> cables and PSC poles, the rates were updated with IEEMA price variation formulae. The revised standard rates of materials thus arrived at and approved by the Board of Directors of K.S.E.B. Ltd are used for the preparation of the proposed data (Annexure. 2). The rates of materials,

which are not available in Annexure 2 are arrived at by applying inflation rates with the last year's approved costs of materials.

- (iii) Cost of transportation: Basic data for the cost of transportation is submitted as Annexure 4. The rates of transportation cost, which are not available in this Annexure 4 are arrived at by applying inflation rates with the last year's approved transportation costs.
5. The following items of works which are found to be required for providing new connection are newly included in this proposal for approval.
- Estimate for 11 kV post insertion in HT/LT line (with stay & strut).
  - Providing strut to the poles in LT & HT lines.
  - Providing stay for the poles in LT & HT lines.
  - Laying of 11 kV 300 sq.mm. XLPE UG Cable.
  - Construction of 11KV line using ACSR Racocon with A Pole & 4 leg pole.
  - Estimate for Re conductoring LT & HT line.
6. It is submitted by K.S.E.B. Ltd that certain items of work in the approved list of 2014-15 are not included in the present proposal, as those works are generally not related to works under section 46 of the Electricity Act 2003.

#### **Remarks of the Kerala HT & EHT Industrial Electricity Consumers' Association**

7. Sri. Jayathilakan represented the Association in the public hearing and submitted the following aspects.
- (i) *Since K.S.E.B.Ltd. is purchasing the above items in bulk, the price compared to individual purchases is very much on the lower side and hence there is scope for reduction of rates on the above items.*
- (ii) *the overhead charges and supervision charges on the estimates prepared may be deleted from the estimated rates.*
- (iii) *For the convenience and benefit of EHT consumers, K.S.E.B.Ltd. may be instructed to purchase ABT meters, PTs and CTs of normally used ratios, in bulk quantities so that the same can be issued to EHT consumers at considerably reduced rates as and when required.*

(iv) *It was submitted by K.S.E.B.Ltd.in their presentation that the changes in rates compared to 2013-14 are -11.6% to + 35%. The (-) rates are few and (+) rates are more. Hence it is prayed that the overall rate increase may be limited to (+) 15% compared to the rates of previous years.*

(v) *With regard to providing connection to an applicant, it is prayed that the earlier practice of K.S.E.B.Ltd. in executing the work through owner or contractor engaged by him by purchasing materials themselves may be continued in order to avoid delays and overall loss to the consumer. The works shall continue to be supervised by K.S.E.B.Ltd. as per the specifications stipulated by them. Also, the applications pending approval with K.S.E.B.Ltd. may be allowed to continue the same procedure for availing connection.*

8. Sri. Shaji Sebastian, KSSIA submitted that in view of the small scale industrial consumers, the increase in the proposed rates is very high. Even PWD is allowing revision only once in three years.
9. Sri. K. K. Ibrahim representing the Aluva Plastic Consortium has submitted that the rates of labour are reasonable whereas the rates of materials, even after bulk purchase have to at a lower level.
10. Sri. B. Pradeep, K.S.E.B.Ltd. clarified that the increase in the present proposal is not for one year. The basic data taken for arriving at the rates approved in 2014 was pertaining to the data for 2012.
11. Based on the hearing, the daily order dated 9.6.2015 is issued in which the Commission allowed time upto 15.6.2015 for written submission to Sri S Jayathilakan, Sri Shaji Sebastian and K.S.E.B.Ltd. Thereafter, K.S.E.B.Ltd has submitted clarification in respect of the observations of the Commission and the objections of stake holders during hearing. K.S.E.B.Ltd had, on 15.6.2015 submitted the revised proposal for the following items considering the observations of the Commission:

- (i) In the estimates for re-conductoring works and conversion of single phase lines to three phase, credit was not given for the depreciated value of taken back materials. This has been incorporated.
- (ii) In the estimates for transformer installation, provision for 3 outgoing feeders are given in all the estimates of 25 kVA, 100 kVA, 160 kVA and 250 kVA. This was revised as a single feeder for 25 kVA transformer, 2 feeders for 100 kVA, 3 feeders for 160 kVA and 250 kVA transformers
- (iii) For items II.16 to II.19 construction of 1 km of LT lines, no of poles in average span of LT lines is considered as 28 poles instead of 30 numbers of poles

12. Based on the anomalies observed during scrutiny of the estimates, the Commission vide letter dated 4.11.2015 sought clarifications from K.S.E.B.Ltd as follows:

- i. What is the rationale behind dispensing with the use of squirrel conductors in drawing overhead lines? What will be the incremental costs and incremental benefits that may arise due to the above decision?*
- ii. What were the commercial/technical reasons for doing away with the 7 M poles? What is the percentage of 7 M poles now in the network? Does K.S.E.B.Ltd. have a plan to replace all of them – if yes, what would be the cost associated with it and what quantified benefits will accrue from this replacement ?*
- iii. In the basic data used for arriving at the estimates, use of Lineman Assistant is specified. Is there any rate for Lineman Assistant in the schedule of rates of CPWD or Kerala PWD?*
- iv. In the basic data for labour for all the estimates, 10% contractor's profit is seen claimed. Are all such works executed using contract labour?*
- v. In the case of construction of lines of a particular span, the quantity of conductor is computed for the maximum distance. The rationale behind this kind of computation shall be substantiated.*
- vi. While finalising the accounts, whether K.S.E.B.Ltd. do transfer a part of your employee cost to capital head. Please provide the details of the amount transferred for the last five years and the percentage of such transfer to the total employee cost incurred. If a fixed*

*percentage is used – the percentage so taken and the rationale for taking that percentage.*

- vii. The major component of a storage cost as per cost accounting principles are the interest cost and the rent of the space utilised. The interest cost is allowed in the tariff calculations and the rent paid on all office space is allowed in the ARR. What is the rationale of allowing 3% storage cost and 3% contingency rate?*
- viii. Copies of purchase orders and such other relevant documents to substantiate the claim regarding the cost of materials shall be submitted to the Commission.*

13. K.S.E.B.Ltd, vide letter No KSEB/TRAC/Cost data/R3/2015-16/2409 dated 16.12.2015 furnished the following clarifications on the points raised by the commission in the letter dated 4.11.2015.

***i. Rationale behind dispensing with use of squirrel conductor in drawing OH lines***

- a. ACSR Squirrel conductor has six Aluminium wires (each having  $\phi 2.11$  mm); one Steel wire ( $\phi 2.11$  mm) is provided for mechanical strength. Gross area of Aluminium is  $20.71 \text{ mm}^2$ , with an ultimate strength of 7.7 kN. It has a resistance of  $1.366 \Omega/\text{km}$  where as ACSR Weasel conductor has six Aluminium wires each of  $\phi 2.59$  mm; the Steel wire also of higher diameter (2.59 mm). Gross area of Aluminium is  $31.63 \text{ mm}^2$  and has an ultimate strength of 11.35 kN. It has a resistance of  $0.905 \Omega/\text{km}$*

*It is evident that ACSR Weasel has better mechanical and electrical properties compared to ACSR Squirrel. The Voltage Drop and  $I^2R$  loss can be considerably reduced by replacing ACSR Squirrel with Weasel*

- b. The Voltage Drop (u) in a Single phase line is calculated as*

$$u = 2 \times (IR \cos \phi + IX \sin \phi)$$

*If we consider resistance of a squirrel conductor is  $1.366 \Omega/\text{km}$  and inductive reactance is  $0.327 \Omega/\text{km}$  for a mere load of 10 kW at a length of 200m, the Voltage Drop will be 26.51V (11.53%), which is far beyond the permissible limit of 6%*

- c. ACSR Squirrel was earlier used for Power Distribution in KSEB, mainly for constructing OH Service Lines. For achieving 100%*

*electrification in Kerala, Distributing lines are extended across the state and this will bring down the number of new OH Service Connections drastically.*

- d. The Service lines which were constructed using ACSR Squirrel will have to be replaced with ACSR Weasel (or higher), as and when new services are added in that line; thereby wasting the scarce resources.*
- e. Due to poor mechanical strength, the Squirrel conductor is likely to snap on falling of tree branches or coconut cudjans; since the service lines are often required within private property, possibility of such incident are more. This can lead to even loss of human and animal life.*
- f. As per the ARR&ERC for 2014-15, the approved AT&C loss in the State is 15.36%; any further reduction in loss can be achieved only by reducing technical loss. For this KSEB has to improve the distribution network by replacing conductors having smaller cross-sectional area with higher capacity conductor (e.g. replacing squirrel with weasel). This will also ensure better Voltage Regulation.*

*The incremental cost in using ACSR Weasel instead of Squirrel for Service line is approximately 10% only, but the benefits (including reducing possibility of accidents, technical loss reduction, better Voltage Regulation etc) listed above outweighs this extra expenditure.*

**ii. Suggesting 8m pole for constructing OH lines**

- a. As per Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 no conductor of an overhead line, including service lines, erected **along any street** shall at any part thereof be at a height less than **5.5m, in all other cases**, the minimum clearance required is **4.6m**.*

*While erecting a PSC pole, as per IS 785:1998, minimum depth of planting of concrete pole (up to 7m) in ground is 1.2 m ( 1.5m for poles having length more than 7m). Also cross arm need to be fixed at least 20 cm from the top of pole. The minimum spacing required between live conductors is 30 cm (75 cm when jumper connection is required) in LT.*

*It is evident that as per statutes a 7m PSC pole cannot be used for constructing OH line along or across any street or even in other area if a jumper connection is required.*

- b. *Earlier, PSC poles of 7m length were widely used for giving OH Service Connections, majority being used for constructing OH Service Lines. For achieving 100% electrification in Kerala, Distributing lines are extended across the state and this will bring down the number of new OH Service Connections drastically.*
- c. *The Service lines which were constructed using 7m pole will have to be replaced with 8m, as and when the line need to be extended (requiring jumper connection) or when there is subsequent change in ground level (earth filling for land development etc); thereby wasting the scarce resources.*
- d. *It may please be noted that as per the guidelines for quality monitoring mechanism of Centrally Aided Projects only 8m & 8.5m poles are permitted for constructing LT lines.*
- e. *Maintaining of cross-country distribution lines is causing inconvenience to utility and general public. So new lines are constructed through public path only to the extent possible; KSEB is also considering shifting of cross-country lines to public path in a phased manner. This, any way, will require minimum 8 m pole.*
- f. *However, 7m poles can be used for constructing OH service lines (in areas other than streets), if statutory clearance can be maintained and if there is no scope for future extension.*

**iii. Employing Lineman-Assistant for electrical works**

*Construction of electric lines and other associated works requires skilled / semi skilled labour, and persons who are licensed to undertake such works. Delhi Schedule of Rates(DSOR), which is adopted in CPWD, PWD & KSEB, has provided specific rate for Lineman, however there is no specific rate for semi-skilled labour (who is often needed to assist a Lineman). However rate for Mate (alias helper) is provided in DSOR.*

*Earlier, the KPWD rates were adopted to finalise cost data. The Lineman Assistant and Mate in KPWD schedule of rates 2012 is having the same rate. Now, CPWD rates are adopted and the rate for Lineman Assistant is not specified in this. Hence, the rate for Mate, which has the same rate as that of Lineman Assistant in KPWD schedule of rates 2012, is taken from CPWD rates for estimating cost data for 2015-16.*

**iv. Provision for 10% Contractor's Profit for all works**

- a. *With the limited manpower available with KSEB, execution of Capital Works, Deposit Works including works being carried out after realizing estimated cost and other funded works may require more time. Due to*



time constraints, such works are generally carried out using contract employees. The standard existing practice for estimation of costs (PAC) while tendering is to include 10% as C.P.

- b. If estimate for works for releasing electric connection are based on employee costs of permanent staff of KSEB, higher rates the salary of respective category of employees is to be used as labour cost. Thus, the estimate rates based on cost of contract labour including 10% CP will generally lower than the estimates based on department labour.

v. **Conductor length considered in each span**

- a. Normally allowance given for cutting wastage and sag is 5% for long LT lines, but this percentage is not applicable for short spans where the cutting wastage is considerable; for short spans it is as high as 9-10% of conductor length. If we consider average length of conductor in various slabs, the difference from present rate will be around 7% only (avg). The estimated cost based on average span length with 9% wastage and full span length with 5% wastage is tabulated below.

	Estimate cost considering average span length and 9% wastage	Estimated cost considering full span length and 5% wastage	% variation
Single Phase line up to 50 m	9796.84	11303.77	15.38%
Single Phase line 50 to 100 m	20907.50	22228.25	6.32%
Single Phase line 100 to 150 m	34826.71	35961.00	3.26%
Single Phase line 150 to 200 m	44838.77	46035.21	2.67%
Three Phase line up to 50 m	14317.80	18892.25	31.95%
Three Phase line 50 to 100 m	33052.48	37264.60	12.74%
Three Phase line 100 to 150 m	51860.53	55710.32	7.42%
Three Phase line 150 to 200 m	70611.84	74099.30	4.94%
Total	280212.47	301494.69	<b>7.06%</b>

- b. Though preparation of estimate based on actual measurement is ideal, it will be time consuming and standardization of rates would be difficult.
- c. KSEB Ltd has considered the span length in steps to limit the no. of stages. If average span is taken, it cannot be predicted that in how

many cases the length of lines would be higher and in how many cases it would be lower.

d. Hon'ble Commission may consider a higher number of steps viz 0-25, 26-50, 51-75, 75-100 etc so that the burden of considering maximum length will be reduced.

vi. **The method adopted for transferring part of employee cost to capital head.**

The following method is adopted for transferring part of employee cost to capital head.

Employee cost of constructions ARU is fully capitalized. Employee cost of Transmission, Distribution and Head office units are capitalized at a preset percentage by analyzing the time spent by employee in construction activity. Accordingly, for transmission 25%, distribution 5% and head office 5% are fixed. The amount capitalized from 2009-10 to 2013-14 are shown in table below.

Sl. No.	Year	Transmission (Rs Crore)	Distribution (Rs Crore)	Head office (Rs Crores)
1	2009-10	18.27	26.84	2.14
2	2010-11	21.06	30.84	2.49
3	2011-12	28.15	42.75	3.14
4	2012-13	31.93	47.32	3.71
5	2013-14	51.07	53.75	3.61

vii. **Rationale of allowing storage and contingency cost.**

As per Commission's order approving cost data for 2014-15, Commission has directed that where specific rate for materials are not available, the cost works shall be as follows.

1. (a) cost of material as per cost data
    - (b) Centage charge 16% of (a)
    - (c) Transportation charge if any
    - (d) Labour charges
  2. Supervision charges 10% of transportation and labour charges
- Grant total (1+2)

Further as per schedule 2 of Kerala Electricity Supply Code 2014 cost of works in distribution sector where specific rates for materials are not available, the cost of works shall be arrived as follows.

1. (a) Cost of material as per cost data  
(b) Centage charge 16% of (a)  
(c) Transportation charge if any  
(d) Labour charges
2. Supervision charges 10% of transportation and labour charges  
Grant total (1+2)

KSEB Ltd has proposed the Centage charge in three heads namely contingency charge (3%), storage charge (3%) and overhead charge (10%) and these charges together is same as 16% ,which is the allowable percentage as approved by the Hon'ble Commission.

In this context, it is requested that the Hon'ble Commission may kindly allow the Centage charge of 16% as per the existing orders and regulations instead of separate percentage for contingency charge (3%) and storage charge (3%).

viii. **Documents to be substantiate the claim regarding cost of materials.**

The method of arriving standard rates of material are elaborated in the B.O. cited as ref (3) and is attached as Annexure 1.

Chief Engineer (SCM) is authorised to furnish the standard rate (weighted average cost) of all Distribution materials with due verification by Chief Internal Auditor and got approved by Full Time Directors.

The cost of material purchased by distribution Chief Engineers and Deputy Chief Engineers were collected by Chief Engineer (SCM) and weighted average cost was calculated. The rate of line materials were furnished by Deputy Chief Engineer, Civil Circle, Pallom. Material for which tender was invited with variable price like distribution transformer, ACSR conductors, 11KV, 3X300 sq.mm cables and poles, the rates were updated with IEEMA price variation formulae. The revised standard rates were furnished to the Chief Internal Auditor for verification. After verification of the same by CIA, Full Time Directors approved the rates.

The purchase orders were placed by Deputy Chief Engineers and Chief Engineers . The statements forwarded by the field offices regarding the details of purchase orders are attached herewith as Annexure 2 for

*reference. The copies of purchase orders placed by Deputy Chief Engineers and chief Engineers of distribution are attached as Annexure -3.*

### **Analysis and Decision of the Commission**

14. 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.

#### *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, scrutinise 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.*

15. The Commission made detailed analyses of the issues in the preceding paragraphs and they are summarised below:
- (a) Usage of No 4 GI wire as support wire for service connections:- No. 4 SWG G.I. wire proposed for the guy wire for supporting weather proof wires in the estimates I.1-I.5 and I. 21 to I. 30. is replaced with No.8

G.I.Wire considering the fact that the same will provide sufficient mechanical strength.

- (b) Dispensing with the use of squirrel conductor:- The explanation furnished by K.S.E.B.Ltd. for using weasel instead of squirrel conductor is satisfactory considering the future expansion, reduced voltage drop and higher mechanical strength leading to less failures and increased quality of supply. Increase in cost of 10 % over the cost of squirrel conductor by using weasel conductor is therefore justifiable.
- (c) Proposing 8M pole for constructing OH line:- K.S.E.B.Ltd. proposed 8M PSC poles in place of 7M PSC poles for overhead services approved in the previous year. Section 58 of the Central electricity Authority (Measures relating to Safety and Electric Supply) is as follows:

**58.Clearance above ground of the lowest conductor of overhead lines.-** (1) *No conductor of an overhead line, including service lines, erected across a street shall at any part thereof be at a height of less than-*

- |   |              |
|---|--------------|
| (i) for lines of voltage not exceeding 650 Volts -                    | 5.8 metres   |
| (ii) for lines of voltage exceeding 650 Volts but not exceeding 33 kV | - 6.1 metres |

(2) *No conductor of an overhead line, including service lines, erected along any street shall at any part thereof be at a height less than-*

- |   |              |
|---|--------------|
| (i) for lines of voltage not exceeding 650 Volts -                    | 5.5 metres   |
| (ii) for lines of voltage exceeding 650 Volts but not exceeding 33 kV | - 5.8 metres |

(3) *No conductor of an overhead line including service lines, erected elsewhere than along or across any street shall be at a height less than-*

- |   |              |
|---|--------------|
| (i) for lines of voltage upto and including 11,000 Volts, if bare         | - 4.6 metres |
| (ii) for lines of voltage upto and including 11,000 Volts, if insulated   | - 4.0 metres |
| (iii) for lines of voltage exceeding 11,000 Volts but not exceeding 33 kV | - 5.2 metres |

It is evident that 7M poles cannot be used for the construction of overhead (OH) lines along or across a public street for providing service connections, if the statutory clearance cannot be maintained. However, when the service line is for providing supply to a consumer through a private property, 7 M poles can be safely used for the construction of OH lines. The Commission has the duty to protect the interest of the consumers and to ensure that no undue amount is charged by the licensee from the consumers. Hence the submission made by the K.S.E.B.Ltd. for using 8M pole cannot be fully accepted as such. The Commission, after considering all these factors, has decided that 7M pole can be used for the construction of single phase OH service lines, wherever safety clearance can be maintained. For three phase lines, 8M poles can be used. K.S.E.B.Ltd. should make optimum use of the poles based on the site condition and adhering to safety requirements. K.S.E.B.Ltd. can realize the difference in cost of using 8M pole from the consumers whenever 8M poles are found essential due to technical reasons for providing single phase services.

- (d) Adoption of rate of line man assistant:- The explanation furnished by the K.S.E.B.Ltd. for adopting the rate for the mate (helper ), as provided in the Delhi schedule of rates adopted by PWD, for line man assistant in the estimates is found to be correct and hence accepted.
- (e) Conductor length considered in each span:- While making their submission on the observation of Commission of taking maximum length of conductor instead of average length, the K.S.E.B.Ltd. proposed to increase the number of steps to reduce the burden on consumers. After analysing the whole matter, the commission has decided to revise the estimate for construction of over head lines from item No 7 to 14 based on the actual length of the line to be constructed. The methodology adopted is to arrive the rates for construction of lines with a minimum specified length based on the number poles required to be used along with the 'rate per metre' for additional length of the line. The estimate rates for lines of lengths upto 50m, 50 to 100m 100m to 150m and 150m

to 200 meters are thus arrived. The additional rate per metre is arrived by considering the additional cost on account of conductor length alone. The said methodology is adopted by the commission to protect the consumers from paying higher amount than what is actually required. K.S.E.B.Ltd. is directed to accurately measure the length of line required to be constructed and arrive on the actual cost to be realised.

- (f) The centage charges are taken as per the provisions in the Supply Code and are accepted.
- (g) The K.S.E.B.Ltd. has submitted sufficient documents for arriving at the cost of materials. K.S.E.B.Ltd. submitted a detailed explanation on the methodology adopted by them for adopting the present cost of materials. The relevant purchase orders are also submitted. The rates adopted are on these bases are found to be satisfactory and hence accepted.
- (h) The Commission is of the view that the estimates for service connections proposed by the K.S.E.B.Ltd are generally on the higher side. The charges proposed for fixing of meter boards are arbitrary. The regulation 54 of Supply Code, 2014 is reproduced below:

**54. Space for installation of service line, meter and other equipment.-** *The consumer shall provide free of charge, the space of requisite dimensions at convenient location as mutually agreed between the consumer and the licensee, for erection and installation of transformer, switch gear, meter, other equipment and that part of service line within his premises, up to the point of supply.*

Hence it is clear that the prospective consumers need to provide proper arrangement for fixing meter and hence the claim for labour charges for fixing meter board is disallowed. The labour for fixing meter is also reduced since the service of two labours seems to be on higher side. The estimate rates for effecting electric connections vide SI No 1 to 5 are therefore, revised and approved.

- (i) The HT and EHT association pointed out that the average increase in the estimates proposed is high. They have stated that the increase in labour cost is reasonable but the increase in material cost is on higher side since K.S.E.B.Ltd is making bulk purchases which should reduce

the average cost. K.S.E.B.Ltd stated that the labour data has been revised by K.S.E.B.Ltd considering the feedback from field which contributed to reduction in labour cost. The Commission accepts the revision in labour considering the present day improvement in facilities. As explained in (h) above, Commission analysed the whole data on purchase of materials and accepted the cost of materials. The average overall increase of the approved cost data is of the order of 12% and hence accepted.

### **Orders of the Commission**

16. K.S.E.B.Ltd. is authorised to recover from a person requiring supply of electricity in pursuance of Section 43 of the Act, the expenditure incurred by it for various works in connection with providing electric line or electrical plant required for giving the supply, at the rates given in the cost data as approved as per Annexures 1 to 73.

Sd/-  
**K. Vikraman Nair**  
Member

Sd/-  
**S. Venugopal**  
Member

Sd/-  
**T.M. Manoharan**  
Chairman

Approved for issue

Sd/-  
Secretary



**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

**Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.**

**A B S T R A C T**

<b>SI No.</b>	<b>Description of the work</b>	<b>Approved Rate (Rs)</b>
1	LT single phase weather proof service connection upto and including 5kW	1700
2	LT three phase weather proof service connection up to and including 10 KW	4200
3	LT three phase weather proof service connection above 10kW upto and including 25kW	14300
4	LT three phase weather proof service connection above 25kW & below 50kVA	21200
5	LT three phase weather proof service connection from 50kVA and above upto and including 100kVA .	23600
6	Providing support pole for weather proof service connection.	4800
7	LT single phase over head service connection upto and including 50m with max. 1 Post	8000 + 62 per M of OH Line
8	LT single phase over head service connection above 50 m upto and including 100 m with max. 2 Posts	18600 + 62 per M of OH Line above 50M
9	LT single phase over head service connection above 100m up to and including 150m with max. 3 Posts	28950 + 62 per M of OH Line above 100M
10	LT single phase over head service connection above 150m up to and including 200m with max. 4 Posts	39150 + 62 per M of OH Line above 150M
11	LT three phase over head service connection upto and including 50m with max. 1 Post	10950 + 182 per M of OH Line
12	LT three phase over head service connection above 50m upto and including 100m with max. 2 Posts	28650 + 182 per M of OH Line above 50M
13	LT three phase over head service connection above 100m up to and including 150m with max. 3 Posts	46800 + 182 per M of OH Line above 100M
14	LT three phase over head service connection above 150m up to and including 200m with max. 4 Posts	64800 + 182 per M of OH Line above 150M
15	Post insertion for LT single phase over head line (without stay)	5650

16	Post insertion for LT single phase over head line (with stay)	7050
17	Post insertion for LT single phase over head line (with strut)	11200
18	Post insertion for LT three phase over head line (without stay)	7250
19	Post insertion for LT three phase over head line (with stay)	8650
20	Post insertion for LT three phase over head line (with strut)	13050
21	Conversion of LT single phase weatherproof service connection to LT three phase weather proof service connection with connected load upto and including 10kW	3700
22	Conversion of LT single phase weatherproof service connection to LT three phase weather proof service connection with load above 10 kW up to and including 25kW	13950
23	Conversion of LT single phase weatherproof service connection to LT three phase weather proof service connection with load above 25kW and below 50kVA	20250
24	Conversion of LT single phase weatherproof service connection to LT three phase weather proof service connection with load 50kVA and above up to and including 100kVA	22650
25	Enhancement of connected load of LT three phase weather proof service connection with a maximum load of 10kW into the range of 10 kW - 25 kW.	13300
26	Enhancement of connected load of LT three phase weather proof service connection with a maximum load of 10kW into the range of >25 kW and less than 50 kVA.	20150
27	Enhancement of connected load of LT three phase weather proof service connection with a maximum load of 10kW into the range of 50 kVA - 100 kVA.	23550
28	Enhancement of connected load of LT three phase weather proof service connection with a connected load >10 kW - 25 kW in to the range of >25 kW and less than 50 kVA.	18150
29	Enhancement of connected load of LT three phase weather proof service connection from the range of 10 kW - 25 kW in to the range of 50 kVA – 100 kVA.	20850
30	Enhancement of connected load of LT three phase weather proof service connection from the range of 25 kW to 50 kVA in to the range of 50 kVA – 100 kVA .	18500
31	Shifting Single Phase meter	550
32	Shifting 3 phase meter	700
33	Shifting 3 phase CT meter	1250
34	HT post insertion in HT/LT line (with stay)	14400
35	HT post insertion in HT/LT line (with strut)	16550

36	Providing strut using LT pole	6150
37	Providing strut for using HT pole	8350
38	Providing LT stay	1650
39	Providing HT stay	2200
40	Reconductoring 1 conductor per metre of LT line with ACSR Rabbit	60
41	Reconductoring 1 conductor per metre of LT line with ACSR Weasel	40
42	Reconductoring per metre HT line with ACSR Raccoon	275
43	Reconductoring per metre HT line with ACSR Rabbit	190
44	Adding one conductor (ACSR Rabbit) per metre on the existing poles (where cross arm is available) inclusive of cost of pin,insulator etc.	90
45	Adding one conductor (ACSR Rabbit) per metre on the existing poles (where cross arm is not available) inclusive of cost of pin, insulator etc.	105
46	Adding one conductor per metre of ACSR Weasel on the existing poles (where cross arm is available) inclusive of cost of pin, insulator etc.	70
47	Adding one conductor per metre of ACSR Weasel on the existing poles (where cross arm is not available) inclusive of cost of pin,insulator etc.	85
48	Conversion of LT single phase 2 wire line to LT Three phase 4 wire line per metre	180
49	Conversion of LT single phase 2 wire line to LT Three phase 5 wire line per metre	220
50	Conversion of LT single phase 3 wire line to LT Three phase 5 wire line per metre	180
51	Drawing Single Phase 2 wire line per metre under existing HT line	150
52	Drawing Single Phase 3 wire line per metre under existing HT line	205
53	Drawing Three Phase 4 wire line per metre under existing HT line	265
54	Drawing Three Phase 5 wire line per metre under existing HT line	315
55	Construction of LT single phase, 2 wire line per metre	345
56	Construction of LT single phase, 3 wire line per metre	390
57	Construction of LT 3 phase, 4 wire line per metre	460
58	Construction of LT 3 phase, 5 wire line per metre	510

59	Construction of 11KV line per metre using ACSR RABBIT using PSC Poles	580
60	Construction of 11KV line per metre using ACSR RACOON using PSC Poles	660
61	Laying of HT XLPE UG Cable per metre (3x300 mm <sup>2</sup> single run)	2000
62	Construction of 11KV line per metre using ACSR Racocon with A Pole (with out tree cutting compensation )	945
63	Construction of 11KV line per metre using ACSR Racocon with 4 Leg (with out provision for tree cutting compensation )	1900
64	Installation of 11 kV/ 433 V , 25 kVA Transformer	202500
65	Installation of 11 kV/ 433 V , 100 kVA Transformer	298450
66	Installation of 11 kV/ 433 V , 160 kVA Transformer.	426100
67	Installation of 11 kV/ 433 V , 250 kVA Transformer.	453600
68	Installation of 11 kV/ 433 V , 500 kVA Transformer.	772850
69	Installation of Data Acquisition compatible, extensible type Ring Main Unit without VCB-CCC (E) (Cable -Cable - Cable)	423600
70	Installation of DA compatible, extensible type Ring Main Unit without VCB-CTC (E) (Cable -Transformer -Cable )	480150
71	Installation of Data Acquisition compatible, extensible type add- on type Ring Main Unit without VCB (Single Switch C-Extn.)	364450
72	Installation of Data Acquisition compatible, extensible type add- on type Ring Main Unit with VCB (Single Switch T-Extn.)	436850
73	Installation of Data Acquisition compatible, extensible type Ring Main Unit with provision for isolation and earthing facility on both sides (GCG)	335650

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## LT single phase weather proof service connection upto and including 5 kW

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	2.20	G.I.Wire 4mm (8SWG)	64.00	kg	140.80
3	40	Weather proof wire 1/1.8 (2x2.5sqmm)	7.75	M	310.00
4	1	32 A fuse unit	71.76	E	71.76
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>561.56</b>
(b)		Storage @ 3% of cost of materials			16.85
(c)		Contingency @ 3% of cost of materials			16.85
(d)		Overhead charges @10% of cost of materials			56.16
		<b>Expenditure on materials (Sub-total)</b>			<b>651.41</b>
(e)		Cost of labour			759.99
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>952.58</b>
(g)		Supervision charges on cost of labour and transportation @10%			95.26
		<b>Expenditure to be recovered (Grand total)</b>			<b>1699.25</b>
				<b>Rounded to Rs.</b>	<b>1700.00</b>
<b>(Rupees One Thousand and Seven Hundred only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT three phase weather proof service connection up to and including 10 KW

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	1	Earthing coil	588.50	E	588.50
3	4.4	G.I.Wire 4mm(8SWG)	64.00	kg	281.60
4	80	Weather proof 1/2.8 (2x6sqmm)	13.45	M	1076.00
5	3	32 A fuse unit	71.76	E	215.28
6	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>2200.38</b>
(b)		Storage @ 3% of cost of materials			66.01
(c)		Contingency @ 3% of cost of materials			66.01
(d)		Overhead charges @10% of cost of materials			220.04
		<b>Expenditure on materials (Sub-total)</b>			<b>2552.44</b>
(e)		Cost of labour			1266.65
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>1459.24</b>
(g)		Supervision charges on cost of labour and transportation @10%			145.92
		<b>Expenditure to be recovered (Grand total)</b>			<b>4157.60</b>
				<b>Rounded to Rs.</b>	<b>4200.00</b>

(Rupees Four Thousand and Two hundred only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT three phase weather proof service connection above 10 kW & up to and including 25 kW

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	1	Earthing coil	588.50	E	588.50
3	4.4	G.I.Wire 4mm (8SWG)	64.00	kg	281.60
4	160	LT PVC Al 50 sq.mm Cable	51.00	M	8160.00
5	3	100 A fuse unit	384.00	E	1152.00
6	1	Insulation tape	18.2	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>10221.10</b>
(b)		Storage @ 3% of cost of materials			306.63
(c)		Contingency @ 3% of cost of materials			306.63
(d)		Overhead charges @10% of cost of materials			1022.11
		<b>Expenditure on materials (Sub-total)</b>			<b>11856.48</b>
(e)		Cost of labour			2026.64
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2219.23</b>
(g)		Supervision charges on cost of labour and transportation @10%			221.92
		<b>Expenditure to be recovered (Grand total)</b>			<b>14297.63</b>
				<b>Rounded to Rs.</b>	<b>14300.00</b>
<b>(Rupees Fourteen thousand and three hundred only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## LT three phase weather proof service connection above 25 kW &amp; below 50kVA

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	1	Earthing coil	588.50	E	588.50
3	160	LT PVC Al 95 sq.mm cable	77.00	M	12320.00
4	4.4	G.I.Wire 4mm (8SWG)	64.00	kg	281.60
5	3	200 A fuse unit	727.00	E	2181.00
6	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>15410.10</b>
(b)		Storage @ 3% of cost of materials			462.30
(c)		Contingency @ 3% of cost of materials			462.30
(d)		Overhead charges @10% of cost of materials			1541.01
		<b>Expenditure on materials (Sub-total)</b>			<b>17875.72</b>
(e)		Cost of labour			2786.63
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2979.22</b>
(g)		Supervision charges on cost of labour and transportation @10%			297.92
		<b>Expenditure to be recovered (Grand total)</b>			<b>21152.86</b>
				<b>Rounded to Rs.</b>	<b>21200.00</b>
<b>(Rupees Twenty One Thousand Two Hundred Only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT three phase weather proof service connection from 50 kVA and above upto and including 100 kVA

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	1	Earthing coil	588.50	E	588.50
3	160	LT PVC Al. 120 sq.mm cable	90.00	M	14400.00
4	4.4	G.I.Wire 4mm (8 SWG)	64.00	kg	281.60
5	3	200 A fuse unit	727.00	E	2181.00
6	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>17490.10</b>
(b)		Storage @ 3% of cost of materials			524.70
(c)		Contingency @ 3% of cost of materials			524.70
(d)		Overhead charges @10% of cost of materials			1749.01
		<b>Expenditure on materials (Sub-total)</b>			<b>20288.52</b>
(e)		Cost of labour			2786.63
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2979.22</b>
(g)		Supervision charges on cost of labour and transportation @10%			297.92
		<b>Expenditure to be recovered (Grand total)</b>			<b>23565.66</b>
<b>Rounded to Rs.</b>					<b>23600.00</b>
<b>( Rupees Twenty Three Thousand Six Hundred Only )</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

**Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.**

**Providing support pole for weather proof service connection**

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	7 M PSC Pole	2111.00	E	2111.00
2	1	Clamp with Bolt and Nut	99.84	set	99.84
(a)		<b>Cost of materials (Sub-total)</b>			<b>2210.84</b>
(b)		Storage @ 3% of cost of materials			66.33
(c)		Contingency @ 3% of cost of materials			66.33
(d)		Overhead charges @10% of cost of materials			221.08
		<b>Expenditure on materials (Sub-total)</b>			<b>2564.57</b>
(e)		Cost of labour			1150.87
(f)		Cost of transportation			870.69
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2021.56</b>
(g)		Supervision charges on cost of labour and transportation @10%			202.16
		<b>Expenditure to be recovered (Grand total)</b>			<b>4788.29</b>
				<b>Rounded to Rs.</b>	<b>4800.00</b>
<b>(Rupees Four Thousand and Eight Hundred only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT single phase over head service connection upto and including 50 M with one pole

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	7 M PSC Pole	2111.00	E	2111.00
2	2	2 line Xarm	196.00	E	392.00
3	2	Clamp G.I for LT cross arm (2/4 line)	83.00	E	166.00
4	4	Shackle set	60.00	set	240.00
5	1	LT stay set	646.00	set	646.00
6	0.5	Bolt & Nut of sizes	91.00	kg	45.50
7	5	ACSR Weasel	26.79	M	133.93
(a)		<b>Cost of materials (Sub-total)</b>			<b>3734.43</b>
(b)		Storage @ 3% of cost of materials			112.03
(c)		Contingency @ 3% of cost of materials			112.03
(d)		Overhead charges @10% of cost of materials			373.44
		<b>Expenditure on materials (Sub-total)</b>			<b>4331.93</b>
(e)		Cost of labour			2169.54
(f)		Cost of transportation			1127.22
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>3296.76</b>
(g)		Supervision charges on cost of labour and transportation @10%			329.68
		<b>Expenditure to be recovered (Grand total)</b>			<b>7958.37</b>
			<b>Rounded to Rs.</b>		<b>8000.00</b>
		Cost of OH line	62.00	M	
		<b>Total</b>	<b>8000 + 62 per M of OH Line</b>		

(Rupees Eight Thousand plus Rupees Sixty Two per Meter of OH Line )

## Note :

- 1 Cost of weather proof portion shall be collected extra
- 2 Charges for providing additional poles, stays and struts if any required shall be collected extra.
- 3 Rs 620/- per pole can be collected if 8 m pole is used due to technical reasons.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT single phase over head service connection above 50 M upto and including 100 M with maximum 2 Poles

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	2	7 M PSC Pole	2111.00	E	4222.00
2	3	2 line Xarm	196.00	E	588.00
3	3	Clamp G.I for LT cross arm (2/4 line)	83.00	E	249.00
4	4	Shackle set	60.00	set	240.00
5	2	Pin insulator set	57.00	set	114.00
6	2	Packing clamp for pin insulator	19.10	E	38.20
6	2	LT stay set	646.00	set	1292.00
7	1	Bolt & Nut of sizes	91.00	kg	91.00
8	110	ACSR Weasel	26.79	M	2946.90
(a)		<b>Cost of materials (Sub-total)</b>			<b>9781.10</b>
(b)		Storage @ 3% of cost of materials			293.43
(c)		Contingency @ 3% of cost of materials			293.43
(d)		Overhead charges @10% of cost of materials			978.11
		<b>Expenditure on materials (Sub-total)</b>			<b>11346.08</b>
(e)		Cost of labour			4339.51
(f)		Cost of transportation			2254.45
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>6593.96</b>
(g)		Supervision charges on cost of labour and transportation @10%			659.40
		<b>Expenditure to be recovered (Grand total)</b>			<b>18599.43</b>
			<b>Rounded to Rs.</b>		<b>18600.00</b>
		Cost of OH line	62.00	M	
		<b>Total</b>	<b>18600 + 62 per M of OH Line above 50M</b>		

(Rupees Eighteen Thousand and Six Hundred plus Rupees Sixty Two per Meter of OH Line above 50M )

## Note :

- 1 Cost of weather proof portion shall be collected extra
- 2 Charges for providing additional poles, stays and struts if any required shall be collected extra.
- 3 Rs 620/- per pole can be collected if 8 m pole is used due to technical reasons.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT single phase over head service connection above 100 M upto and including 150 M with maximum 3 Poles

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	3	7 M PSC pole	2111.00	E	6333.00
2	4	2 line Xarm	196.00	E	784.00
3	4	Clamp G.I for LT cross arm (2/4 line)	83.00	E	332.00
4	4	Shackle set	60.00	set	240.00
5	4	Pin insulator set	57.00	set	228.00
6	4	Packing clamp for pin insulator	19.10	E	76.40
7	2	LT stay set	646.00	set	1292.00
8	1.50	Bolt & Nut of sizes	91.00	kg	136.50
9	215	ACSR Weasel	26.79	M	5759.85
(a)		<b>Cost of materials (Sub-total)</b>			<b>15181.75</b>
(b)		Storage @ 3% of cost of materials			455.45
(c)		Contingency @ 3% of cost of materials			455.45
(d)		Overhead charges @10% of cost of materials			1518.18
		<b>Expenditure on materials (Sub-total)</b>			<b>17610.83</b>
(e)		Cost of labour			6509.26
(f)		Cost of transportation			3759.84
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>10269.10</b>
(g)		Supervision charges on cost of labour and transportation @10%			1026.91
		<b>Expenditure to be recovered (Grand total)</b>			<b>28906.84</b>
			<b>Rounded to Rs.</b>		<b>28950.00</b>
		Cost of OH line	62.00	M	
		<b>Total</b>	<b>28950 + 62 per M of OH Line above 100M</b>		

**(Rupees Twenty Eight Thousand Nine Hundred and Fifty plus Rupees Sixty Two per Meter of OH Line above 100M)**

## Note :

- 1 Cost of weather proof portion shall be collected extra
- 2 Charges for providing additional poles, stays and struts if any required shall be collected extra.
- 3 Rs 620/- per pole can be collected if 8 m pole is used due to technical reasons.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT single phase over head service connection above 150 M upto and including 200 M with maximum 4 Poles

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	4	7 M PSC Pole	2111.00	E	8444.00
2	5	2 line Xarm	196.00	E	980.00
3	5	Clamp G.I for LT cross arm (2/4 line)	83.00	E	415.00
4	4	Shackle set	60.00	set	240.00
5	6	Pin Insulator set	57.00	set	342.00
6	6	Packing Clamp for Pin insulator	19.10	E	114.60
7	3	LT stay set	646.00	set	1938.00
8	2	Bolt & Nut of sizes	91.00	kg	182.00
9	320	ACSR Weasel	26.79	M	8572.80
(a)		<b>Cost of materials (Sub-total)</b>			<b>21228.40</b>
(b)		Storage @ 3% of cost of materials			636.85
(c)		Contingency @ 3% of cost of materials			636.85
(d)		Overhead charges @10% of cost of materials			2122.84
		<b>Expenditure on materials (Sub-total)</b>			<b>24624.94</b>
(e)		Cost of labour			8679.03
(f)		Cost of transportation			4508.90
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>13187.93</b>
(g)		Supervision charges on cost of labour and transportation @10%			1318.79
		<b>Expenditure to be recovered (Grand total)</b>			<b>39131.67</b>
			<b>Rounded to Rs.</b>		<b>39150.00</b>
		Cost of OH line	62.00	M	
		<b>Total</b>	<b>39150 + 62 per M of OH Line above 150M</b>		

**(Rupees Thirty Nine Thousand One Hundred and Fifty plus Rupees Sixty Two per Meter of OH Line above 150M )**

**Note :**

- 1 Cost of weather proof portion shall be collected extra
- 2 Charges for providing additional poles, stays and struts if any required shall be collected extra.
- 3 Rs 620/- per pole can be collected if 8 m pole is used due to technical reasons.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT three phase over head service connection upto and including 50 M with one pole

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	8 M PSC Pole	2645.00	E	2645.00
2	2	4 line Xarm	436.00	E	872.00
3	2	Clamp G.I for LT cross Arm (2/4 line)	83.00	E	166.00
4	8	Shackle set	60.00	set	480.00
5	2	LT stay set	646.00	set	1292.00
6	1.25	Bolt & Nut of sizes	91.00	kg	113.75
7	7.50	ACSR Rabbit	43.13	M	323.48
8	2.50	ACSR Weasel	26.79	M	66.98
(a)		<b>Cost of materials (Sub-total)</b>			<b>5959.20</b>
(b)		Storage @ 3% of cost of materials			178.78
(c)		Contingency @ 3% of cost of materials			178.78
(d)		Overhead charges @10% of cost of materials			595.92
		<b>Expenditure on materials (Sub-total)</b>			<b>6912.67</b>
(e)		Cost of labour			2499.53
(f)		Cost of transportation			1167.82
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>3667.35</b>
(g)		Supervision charges on cost of labour and transportation @10%			366.73
		<b>Expenditure to be recovered (Grand total)</b>			<b>10946.75</b>
			<b>Rounded to Rs.</b>		<b>10950.00</b>
		Cost of OH line	182.00	M	
		<b>Total</b>	<b>10950 + 182 per M of OH Line</b>		

(Rupees Ten Thousand Nine Hundred and Fifty plus Rupees One Hundred and Eighty Two per Meter of OH Line )

Note :

1 Cost of weather proof portion shall be collected extra

2 Charges for providing additional poles, stays and struts if any required shall be collected extra.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT three phase over head service connection above 50 M upto and including 100 M with maximum 2 poles.

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	2	8 M PSC Pole	2645.00	E	5290.00
2	3	4 line Xarm	436.00	E	1308.00
3	3	Clamp G.I for LT cross arm (2/4 line)	83.00	E	249.00
4	8	Shackle set	60.00	set	480.00
5	4	Pin insulator set	57.00	set	228.00
6	4	Packing clamp for pin insulator	19.10	E	76.40
7	2	LT stay set	646.00	set	1292.00
8	2.50	Bolt & Nut of sizes	91.00	kg	227.50
9	165	ACSR Rabbit	43.13	M	7116.45
10	55	ACSR Weasel	26.79	M	1473.45
(a)		<b>Cost of materials (Sub-total)</b>			<b>17740.80</b>
(b)		Storage @ 3% of cost of materials			532.22
(c)		Contingency @ 3% of cost of materials			532.22
(d)		Overhead charges @10% of cost of materials			1774.08
		<b>Expenditure on materials (Sub-total)</b>			<b>20579.33</b>
(e)		Cost of labour			4999.78
(f)		Cost of transportation			2335.65
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>7335.43</b>
(g)		Supervision charges on cost of labour and transportation @10%			733.54
		<b>Expenditure to be recovered (Grand total)</b>			<b>28648.30</b>
			<b>Rounded to Rs.</b>		<b>28650.00</b>
		Cost of OH line	182.00	M	
		<b>Total</b>	<b>28650 + 182 per M of OH Line above 50M</b>		

**(Rupees Twenty Eight Thousand Six Hundred and Fifty plus Rupees One Hundred and Eighty Two per Meter of OH Line above 50M )**

Note :

- 1 Cost of weather proof portion shall be collected extra
- 2 Charges for providing additional poles, stays and struts if any required shall be collected extra.



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT three phase Over Head service connection above 100M upto and including 150m with maximum 3 poles

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	3	8 M PSC Pole	2645.00	E	7935.00
2	4	4 line Xarm	436.00	E	1744.00
3	4	Clamp G.I for LT cross arm (2/4 line)	83.00	E	332.00
4	8	Shackle set	60.00	set	480.00
5	8	Pin insulator set	57.00	set	456.00
6	8	Packing clamp for pin insulator	19.10	E	152.80
7	2	LT stay set	646.00	set	1292.00
8	3.75	Bolt & Nut of sizes	91.00	kg	341.25
9	322.50	ACSR Rabbit	43.13	M	13909.43
10	107.50	ACSR Weasel	26.79	M	2879.93
(a)		<b>Cost of materials (Sub-total)</b>			<b>29522.40</b>
(b)		Storage @ 3% of cost of materials			885.67
(c)		Contingency @ 3% of cost of materials			885.67
(d)		Overhead charges @10% of cost of materials			2952.24
		<b>Expenditure on materials (Sub-total)</b>			<b>34245.98</b>
(e)		Cost of labour			7498.58
(f)		Cost of transportation			3880.64
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>11379.22</b>
(g)		Supervision charges on cost of labour and transportation @10%			1137.92
		<b>Expenditure to be recovered (Grand total)</b>			<b>46763.13</b>
			<b>Rounded to Rs.</b>		<b>46800.00</b>
		Cost of OH line	182.00	M	
		<b>Total</b>	<b>46800 + 182 per M of OH Line above 100M</b>		

**(Rupees Forty Six Thousand and Eight Hundred plus Rupees One Hundred and Eighty Two per Meter of OH Line above 100M )**

Note :

- 1 Cost of weather proof portion shall be collected extra
- 2 Charges for providing additional poles, stays and struts if any required shall be collected extra.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

LT three phase over head service connection above 150 M upto and including 200 M with maximum 4 poles

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	4	8 M PSC Pole	2645.00	E	10580.00
2	5	4 line Xarm	436.00	E	2180.00
3	5	Clamp G.I for LT cross arm (2/4 line)	83.00	E	415.00
4	8	Shackle set	60.00	set	480.00
5	12	Pin insulator set	57.00	set	684.00
6	12	Packing clamp for pin insulator	19.10	E	229.20
7	3	LT stay set	646.00	set	1938.00
8	5	Bolt & Nut of sizes	91.00	kg	455.00
9	480	ACSR Rabbit	43.13	M	20702.40
10	160	ACSR Weasel	26.79	M	4286.40
(a)		<b>Cost of materials (Sub-total)</b>			<b>41950.00</b>
(b)		Storage @ 3% of cost of materials			1258.50
(c)		Contingency @ 3% of cost of materials			1258.50
(d)		Overhead charges @10% of cost of materials			4195.00
		<b>Expenditure on materials (Sub-total)</b>			<b>48662.00</b>
(e)		Cost of labour			9998.11
(f)		Cost of transportation			4671.30
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>14669.41</b>
(g)		Supervision charges on cost of labour and transportation @10%			1466.94
		<b>Expenditure to be recovered (Grand total)</b>			<b>64798.35</b>
<b>Rounded to Rs.</b>					<b>64800.00</b>
		Cost of OH line	182.00	M	
		<b>Total</b>	<b>64800 + 182 per M of OH Line above 150M</b>		

**(Rupees Sixty Four Thousand and Eight Hundred plus Rupees One Hundred and Eighty Two per Meter of OH Line above 150M )**

Note :

- 1 Cost of weather proof portion shall be collected extra
- 2 Charges for providing additional poles, stays and struts if any required shall be collected extra.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Pole insertion in LT Single Phase Over Head line (without stay )

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	7 M PSC Pole	2111.00	E	2111.00
2	1	2 line Xarm	196.00	E	196.00
3	1	Clamp G.I for LT cross arm (2/4 line)	83.00	E	83.00
4	2	Pin insulator set	57.00	set	114.00
5	2	Packing clamp for pin insulator	19.10	E	38.20
6	0.50	Bolt & Nut of sizes	91.00	kg	45.50
(a)		<b>Cost of materials (Sub-total)</b>			<b>2587.70</b>
(b)		Storage @ 3% of cost of materials			77.63
(c)		Contingency @ 3% of cost of materials			77.63
(d)		Overhead charges @10% of cost of materials			258.77
		<b>Expenditure on materials (Sub-total)</b>			<b>3001.73</b>
(e)		Cost of labour			1306.00
(f)		Cost of transportation			1086.14
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2392.14</b>
(g)		Supervision charges on cost of labour and transportation @10%			239.21
		<b>Expenditure to be recovered (Grand total)</b>			<b>5633.08</b>
<b>Rounded to Rs.</b>					<b>5650.00</b>
<b>(Rupees Five Thousand Six Hundred and Fifty only)</b>					

## Note :

1 Rs 620/- per pole can be collected if 8 m pole is used due to technical reasons.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Pole insertion in LT single phase over head line (with stay)

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	7m PSC Pole	2111.00	E	2111.00
2	1	2 line Xarm	196.00	E	196.00
3	1	Clamp G.I for LT cross arm (2/4 line)	83.00	E	83.00
4	2	Pin insulator set	57.00	set	114.00
5	2	Packing clamp for pin insulator	19.10	E	38.20
6	1	LT stay set	646.00	set	646.00
7	0.50	Bolt & Nut of sizes	91.00	kg	45.50
(a)		<b>Cost of materials (Sub-total)</b>			<b>3233.70</b>
(b)		Storage @ 3% of cost of materials			97.01
(c)		Contingency @ 3% of cost of materials			97.01
(d)		Overhead charges @10% of cost of materials			323.37
		<b>Expenditure on materials (Sub-total)</b>			<b>3751.09</b>
(e)		Cost of labour			1873.49
(f)		Cost of transportation			1086.14
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2959.63</b>
(g)		Supervision charges on cost of labour and transportation @10%			295.96
		<b>Expenditure to be recovered (Grand total)</b>			<b>7006.68</b>
				<b>Rounded to Rs.</b>	<b>7050.00</b>

**(Rupees Seven Thousand and Fifty only)**

## Note :

1 Rs 620/- per pole can be collected if 8 m pole is used due to technical reasons.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Pole insertion in LT single phase over head line (with strut )

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	2	7m PSC Pole	2111.00	E	4222.00
2	3	2 line Xarm	196.00	E	588.00
3	3	Clamp G.I for LT cross crm (2/4 line)	83.00	E	249.00
4	2	Pin insulator set	57.00	set	114.00
5	2	Packing clamp for Pin insulator	19.10	E	38.20
6	0.50	Bolt & Nut of sizes	91.00	kg	45.50
(a)		<b>Cost of materials (Sub-total)</b>			<b>5256.70</b>
(b)		Storage @ 3% of cost of materials			157.70
(c)		Contingency @ 3% of cost of materials			157.70
(d)		Overhead charges @10% of cost of materials			525.67
		<b>Expenditure on materials (Sub-total)</b>			<b>6097.77</b>
(e)		Cost of labour			2423.88
(f)		Cost of transportation			2172.28
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>4596.16</b>
(g)		Supervision charges on cost of labour and transportation @10%			459.62
		<b>Expenditure to be recovered (Grand total)</b>			<b>11153.55</b>
				<b>Rounded to Rs.</b>	<b>11200.00</b>

(Rupees Eleven Thousand and Two Hundred only)

## Note :

1 Rs 620/- per pole can be collected if 8 m pole is used due to technical reasons.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Pole insertion in LT three phase over head line (without stay )

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	8 M PSC Pole	2645.00	E	2645.00
2	1	4 line Xarm	436.00	E	436.00
3	1	Clamp G.I for LT cross arm (2/4 line)	83.00	E	83.00
4	4	Pin insulator set	57.00	set	228.00
5	4	Packing clamp for pin insulator	19.10	E	76.40
6	1.25	Bolt & Nut of sizes	91.00	kg	113.75
(a)		<b>Cost of materials (Sub-total)</b>			<b>3582.15</b>
(b)		Storage @ 3% of cost of materials			107.46
(c)		Contingency @ 3% of cost of materials			107.46
(d)		Overhead charges @10% of cost of materials			358.22
		<b>Expenditure on materials (Sub-total)</b>			<b>4155.29</b>
(e)		Cost of labour			1408.14
(f)		Cost of transportation			1398.98
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2807.12</b>
(g)		Supervision charges on cost of labour and transportation @10%			280.71
		<b>Expenditure to be recovered (Grand total)</b>			<b>7243.12</b>
<b>Rounded to Rs.</b>					<b>7250.00</b>
<b>(Rupees Seven Thousand Two Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Estimate for pole insertion in LT three phase over head line (with stay )

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	8M PSC Pole	2645.00	E	2645.00
2	1	4 line Xarm	436.00	E	436.00
3	1	Clamp G.I for LT cross arm (2/4 line)	83.00	E	83.00
4	4	Pin insulator set	57.00	set	228.00
5	4	Packing clamp for pin insulator	19.10	E	76.40
6	1	LT stay set	646.00	set	646.00
7	1.25	Bolt & Nut of sizes	91.00	kg	113.75
(a)		<b>Cost of materials (Sub-total)</b>			<b>4228.15</b>
(b)		Storage @ 3% of cost of materials			126.84
(c)		Contingency @ 3% of cost of materials			126.84
(d)		Overhead charges @10% of cost of materials			422.82
		<b>Expenditure on materials (Sub-total)</b>			<b>4904.65</b>
(e)		Cost of labour			1969.97
(f)		Cost of transportation			1398.98
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>3368.95</b>
(g)		Supervision charges on cost of labour and transportation @10%			336.90
		<b>Expenditure to be recovered (Grand total)</b>			<b>8610.50</b>
				<b>Rounded to Rs.</b>	<b>8650.00</b>
<b>(Rupees Eight Thousand Six Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Pole insertion in LT three phase over head line (with strut)

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	2	8m PSC Pole	2645.00	E	5290.00
2	1	4 line Xarm	436.00	E	436.00
3	1	Clamp G.I for LT cross arm (2/4 line)	83.00	E	83.00
4	2	2 line Xarm	196.00	E	392.00
5	2	Clamp G.I for LT cross arm (2/4 line)	83.00	E	166.00
6	4	Pin insulator set	57.00	set	228.00
7	4	Packing Clamp for pin insulator	19.10	E	76.40
8	1.25	Bolt & Nut of sizes	91.00	kg	113.75
(a)		<b>Cost of materials (Sub-total)</b>			<b>6785.15</b>
(b)		Storage @ 3% of cost of materials			203.55
(c)		Contingency @ 3% of cost of materials			203.55
(d)		Overhead charges @10% of cost of materials			678.52
		<b>Expenditure on materials (Sub-total)</b>			<b>7870.77</b>
(e)		Cost of labour			2526.02
(f)		Cost of transportation			2172.28
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>4698.30</b>
(g)		Supervision charges on cost of labour and transportation @10%			469.83
		<b>Expenditure to be recovered (Grand total)</b>			<b>13038.91</b>
<b>Rounded to Rs.</b>					<b>13050.00</b>

(Rupees Thirteen Thousand and Fifty only)



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Conversion of LT single phase weather proof service connection to LT three phase weather proof service connection with connected load upto and including 10kW

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz.	20.80
2	4.4	G.I. wire 4mm	64.00	kg	281.60
3	80	Weather proof 1/2.8 (2x6sqmm)	13.45	M	1076.00
4	2	32 A fuse unit	71.76	E	143.52
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>1540.12</b>
(b)		Storage @ 3% of cost of materials			46.20
(c)		Contingency @ 3% of cost of materials			46.20
(d)		Overhead charges @10% of cost of materials			154.01
		<b>Expenditure on materials (Sub-total)</b>			<b>1786.54</b>
(e)		Cost of labour			1773.31
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>1965.90</b>
(g)		Supervision charges on cost of labour and transportation @10%			196.59
(h)		Credit depreciated value of taken back materials			-261.28
		<b>Expenditure to be recovered (Grand total)</b>			<b>3687.75</b>
				<b>Rounded to Rs.</b>	<b>3700.00</b>

(Rupees Three thousand seven hundred only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Conversion of LT single phase weather proof service connection to LT three phase weather proof service connection with load above 10 kW upto and including 25 kW

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	4.4	GI wire 4 mm(8SWG)	64.00	kg	281.60
3	160	PVC 50 sq.mm S.C cable	51.00	M	8160.00
4	3	100 A fuse unit	383.00	E	1149.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>9629.60</b>
(b)		Storage @ 3% of cost of materials			288.89
(c)		Contingency @ 3% of cost of materials			288.89
(d)		Overhead charges @10% of cost of materials			962.96
		<b>Expenditure on materials (Sub-total)</b>			<b>11170.34</b>
(e)		Cost of labour			2533.30
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2725.89</b>
(g)		Supervision charges on cost of labour and transportation @10%			272.59
(h)		Credit depreciated value of taken back materials			-261.28
		<b>Expenditure to be recovered (Grand total)</b>			<b>13907.54</b>
<b>Rounded to Rs.</b>					<b>13950.00</b>
<b>( Rupees Thirteen Thousand Nine Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Conversion of LT single phase weather proof service connection to LT three phase weather proof service connection with load above 25kW upto and including 50kVA

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	4.4	GI wire 4mm	64.00	kg	281.60
3	160	PVC 95 sq.mm S.C cable	77.00	M	12320.00
4	3	200 A fuse unit	727.00	E	2181.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>14821.60</b>
(b)		Storage @ 3%			444.65
(c)		Contingency @ 3%			444.65
(d)		Overhead charges @10%			1482.16
		<b>Expenditure on materials (Sub-total)</b>			<b>17193.06</b>
(e)		Cost of labour			2786.63
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2979.22</b>
(g)		Supervision charges on cost of labour and transportation @10%			297.92
(h)		Credit depreciated value of taken back materials			-261.28
		<b>Expenditure to be recovered (Grand total)</b>			<b>20208.92</b>
				<b>Rounded to Rs.</b>	<b>20250.00</b>
<b>(Rupees Twenty thousand Two Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Estimate for conversion of LT single phase weather proof service connection to LT three phase weather proof service connection with load above 50kVA and up to and including 100kVA

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	4.4	GI wire 4 mm	64.00	kg	281.60
3	160	PVC 120 sq.mm S.C cable	90.00	M	14400.00
4	3	200 A fuse unit	727.00	E	2181.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>16901.60</b>
(b)		Storage @ 3%			507.05
(c)		Contingency @ 3%			507.05
(d)		Overhead charges @10%			1690.16
		<b>Expenditure on materials (Sub-total)</b>			<b>19605.86</b>
(e)		Cost of labour			2786.63
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2979.22</b>
(g)		Supervision charges on cost of labour and transportation @10%			297.92
(h)		Credit depreciated value of taken back materials			-261.28
		<b>Expenditure to be recovered (Grand total)</b>			<b>22621.72</b>
<b>Rounded to Rs.</b>					<b>22650.00</b>
<b>(Rupees Twenty Two Thousand Six Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Enhancement of connected load of LT three phase weather proof service connection with a max. load of 10kW into the range of 10 kW to 25 kW.

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	4.4	GI wire 4 mm (8SWG)	64.00	kg	281.60
3	160	LT PVC AL 50 Sq.mm cable	51.00	M	8160.00
4	3	100 A fuse unit	384.00	E	1152.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>9632.60</b>
(b)		Storage @ 3%			288.98
(c)		Contingency @ 3%			288.98
(d)		Overhead charges @10%			963.26
		<b>Expenditure on materials (Sub-total)</b>			<b>11173.82</b>
(e)		Cost of labour			2026.64
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2219.23</b>
(g)		Supervision charges on cost of labour and			221.92
(h)		Credit depreciated value of taken back materials			-331.00
		<b>Expenditure to be recovered (Grand total)</b>			<b>13283.97</b>
<b>Rounded to Rs.</b>					<b>13300.00</b>

(Rupees Thirteen Thousand and three hundred only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Enhancement of connected load of LT three phase weather proof service connection with a maximum connected load of 10 kW into the range of 25 kW - 50 kVA.

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	160	PVC 95 Sqmm S.C cable	77.00	M	12320.00
3	4.4	GI wire 4mm	64.00	kg	281.60
4	3	200 A fuse unit	727.00	E	2181.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>14821.60</b>
(b)		Storage @ 3%			444.65
(c)		Contingency @ 3%			444.65
(d)		Overhead charges @10%			1482.16
		<b>Expenditure on materials (Sub-total)</b>			<b>17193.06</b>
(e)		Cost of labour			2786.63
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2979.22</b>
(g)		Supervision charges on cost of labour and transportation @10%			297.92
(h)		Credit depreciated value of taken back materials			-331.00
		<b>Expenditure to be recovered (Grand total)</b>			<b>20139.20</b>
<b>Rounded to Rs.</b>					<b>20150.00</b>

(Rupees Twenty Thousand One Hundred and Fifty only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Enhancement of connected load of LT three phase service connection with a maximum connected load of 10 kW into the range of 50 kVA - 100 kVA .

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	1	Earthing coil	588.50	E	588.50
3	160	PVC 120 Sqmm S.C cable	90.00	M	14400.00
4	4.4	GI wire 4mm (8SWG)	64.00	kg	281.60
5	3	200 A fuse unit	727.00	E	2181.00
6	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>17490.10</b>
(b)		Storage @ 3%			524.70
(c)		Contingency @ 3%			524.70
(d)		Overhead charges @10%			1749.01
		<b>Expenditure on materials (Sub-total)</b>			<b>20288.52</b>
(e)		Cost of labour			3039.96
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>3232.55</b>
(g)		Supervision charges on cost of labour and transportation @10%			323.26
(h)		Credit depreciated value of taken back materials			-331.00
		<b>Expenditure to be recovered (Grand total)</b>			<b>23513.32</b>
<b>Rounded to Rs.</b>					<b>23550.00</b>
<b>(Rupees Twenty Three Thousand Five Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Enhancement of connected load of LT three phase service connection with load in the range of 10kW - 25 kW into the range of 25 kW - 50kVA

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	160	PVC 95 Sqmm S.C	77.00	M	12320.00
3	4.4	GI wire 4mm (8SWG)	64.00	kg	281.60
4	3	200 A fuse unit	727.00	E	2181.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>14821.60</b>
(b)		Storage @ 3%			444.65
(c)		Contingency @ 3%			444.65
(d)		Overhead charges @10%			1482.16
		<b>Expenditure on materials (Sub-total)</b>			<b>17193.06</b>
(e)		Cost of labour			2786.63
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2979.22</b>
(g)		Supervision charges on cost of labour and transportation @10%			297.92
(h)		Credit depreciated value of taken back materials			-2350.00
		<b>Expenditure to be recovered (Grand total)</b>			<b>18120.20</b>
<b>Rounded to Rs.</b>					<b>18150.00</b>
<b>(Rupees Eighteen Thousand One Hundred and Fifty only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Estimate for enhancement of connected load of LT three Phase service connection with load in the range of 10kW - 25 kW into the range of 50 kVA -100 kVA

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	160	PVC 120 Sqmm S.C cable	90.00	M	14400.00
3	4.4	GI wire 4 mm (8SWG)	64.00	kg	281.60
4	3	200 A fuse unit	727.00	E	2181.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>16901.60</b>
(b)		Storage @ 3%			507.05
(c)		Contingency @ 3%			507.05
(d)		Overhead charges @10%			1690.16
		<b>Expenditure on materials (Sub-total)</b>			<b>19605.86</b>
(e)		Cost of labour			3039.96
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>3232.55</b>
(g)		Supervision charges on cost of labour and transportation @10%			323.26
(h)		Credit depreciated value of taken back materials			-2350.00
		<b>Expenditure to be recovered (Grand total)</b>			<b>20811.66</b>
<b>Rounded to Rs.</b>					<b>20850.00</b>
<b>(Rupees Twenty Thousand and Eight Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Enhancement of connected load of LT three phase service connection with load in the range of 25 kW-50 kVA into the range of 50 kVA -100 kVA

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Iron screws of sizes	20.80	doz	20.80
2	160	PVC 120 Sqmm S.C cable	90.00	M	14400.00
3	4.4	GI wire 4 mm (8SWG)	64.00	kg	281.60
4	2	Bolts and Nuts of sizes	91.00	kg	182.00
5	1	Insulation tape	18.20	roll	18.20
(a)		<b>Cost of materials (Sub-total)</b>			<b>14902.60</b>
(b)		Storage @ 3%			447.08
(c)		Contingency @ 3%			447.08
(d)		Overhead charges @10%			1490.26
		<b>Expenditure on materials (Sub-total)</b>			<b>17287.02</b>
(e)		Cost of labour			3039.96
(f)		Cost of transportation			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>3232.55</b>
(g)		Supervision charges on cost of labour and transportation @10%			323.26
(h)		Credit depreciated value of taken back materials			-2350.00
		<b>Expenditure to be recovered (Grand total)</b>			<b>18492.82</b>
<b>Rounded to Rs.</b>					<b>18500.00</b>
<b>(Rupees Eighteen Thousand and Five Hundred only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Estimate for shifting single phase energymeters

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
		Shifting one Single Phase Metering equipment with all fittings including lowering down the WP service wire ,Dismantling meter Board without making damage and refitting the same at new location and redoing the WP service wire with all fittings.		E	481.53
		Add 10% supervision charges			48.15
		<b>Total</b>			529.68
		<b>Rounded to Rs.</b>			<b>550.00</b>
<b>( Rupees Five Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Estimate for shifting three phase energy Meters

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
		Shifting one three Phase metering equipment with all fittings including lowering down the WP service wire ,dismantling meter board without making damage and refitting the same at new location and redoing the WP service wire with all fittings.		E	633.55
		Add 10% supervision charges			<b>63.36</b>
		<b>Total</b>			696.91
		<b>Rounded to Rs.</b>			<b>700.00</b>
<b>(Rupees Seven Hundred only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Estimate for shifting three phase CT meters

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
		Shifting one three Phase CT Metering equipment with all fittings including lowering down the WP service wire ,Dismantling meter board without making damage and refitting the same at new location and redoing the WP service wire with all fittings.		E	1115.29
		Add 10% supervision charges			111.53
		<b>Total</b>			1226.82
		<b>Rounded to Rs.</b>			<b>1250.00</b>
<b>(Rupees One Thousand Two Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## HT pole insertion in HT/LT line (with stay )

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	9 M PSC pole	3830.00	E	3830.00
2	1	V cross arm	928.00	E	928.00
3	1	Clamp G.I for V cross arm	158.00	E	158.00
4	1	4 Line X arm	436.00	E	436.00
5	1	Clamp G.I for LT cross arm (2/4 line)	83.00	E	83.00
6	3	11 kV Pin insulator set	127.00	set	381.00
7	4	LT Pin insulator set	57.00	set	228.00
8	4	Packing clamp for pin insulator	19.10	E	76.40
9	1	Stay set complete	834.00	set	834.00
10	1	Provision for earthing	507.10	E	507.10
11	3	Pole top bracket	112.00	E	336.00
12	1.50	Bolt & Nut of sizes	91.00	kg	136.50
(a)		<b>Cost of materials (Sub-total)</b>			<b>7934.00</b>
(b)		Storage @ 3%			238.02
(c)		Contingency @ 3%			238.02
(d)		Overhead charges @10%			793.40
		<b>Expenditure on materials (Sub-total)</b>			<b>9203.44</b>
(e)		Cost of labour			3152.53
(f)		Cost of transportation			1566.79
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>4719.32</b>
(g)		Supervision charges on cost of labour and			471.93
		<b>Expenditure to be recovered (Grand total)</b>			<b>14394.69</b>
<b>Rounded to Rs.</b>					<b>14400.00</b>
<b>(Rupees Fourteen Thousand and Four Hundred only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## HT pole insertion in HT/LT line (with strut using 8 M pole )

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	9 M PSC Pole	3830.00	E	3830.00
2	1	8 M PSC Pole	2645.00	E	2645.00
3	1	V cross arm	928.00	E	928.00
4	1	Clamp G.I for V cross Arm	158.00	E	158.00
5	1	4 Line X arm	436.00	E	436.00
6	1	Clamp G.I for LT cross arm (2/4 line)	83.00	E	83.00
7	3	11 kV Pin insulator set	127.00	set	381.00
8	4	LT Pin insulator set	57.00	set	228.00
9	3	Packing clamp for pin insulator	19.10	E	57.30
10	3	Pole top bracket	112.00	E	336.00
11	1.50	Bolt & Nut of sizes	91.00	E	136.50
(a)		<b>Cost of materials (Sub-total)</b>			<b>9218.80</b>
(b)		Storage @ 3%			276.56
(c)		Contingency @ 3%			276.56
(d)		Overhead charges @10%			921.88
		<b>Expenditure on materials (Sub-total)</b>			<b>10693.81</b>
(e)		Cost of labour			3449.60
(f)		Cost of transportation			1857.11
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>5306.71</b>
(g)		Supervision charges on cost of labour and transportation @10%			530.67
		<b>Expenditure to be recovered</b>			<b>16531.19</b>
				<b>Rounded to Rs.</b>	<b>16550.00</b>
<b>(Rupees Sixteen Thousand Five Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Providing strut using LT pole

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	8 M PSC Pole	2645.00	E	2645.00
2	2	2 line Xarm	196.00	E	392.00
3	2	Clamp G.I for LT cross arm (2/4 line)	83.00	E	166.00
(a)		<b>Cost of materials (Sub-total)</b>			<b>3203.00</b>
(b)		Storage @ 3%			96.09
(c)		Contingency @ 3%			96.09
(d)		Overhead charges @10%			320.30
		<b>Expenditure on materials (Sub-total)</b>			<b>3715.48</b>
(e)		Cost of labour			1117.89
(f)		Cost of transportation			1086.14
		<b>Cost of labour &amp; transportation sub total (e&amp;f)</b>			2204.03
(g)		Supervision charges on cost of labour and transportation @10%			220.40
		<b>Expenditure to be recovered (Grand total)</b>			<b>6139.91</b>
<b>Rounded to Rs.</b>					<b>6150.00</b>
<b>(Rupees Six Thousand One Hundred and Fifty only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Providing strut using HT pole

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	9m PSC pole	3830.00	E	3830.00
2	2	2 line Xarm	196.00	E	392.00
3	2	Clamp G.I for LT cross arm (2/4 line)	83.00	E	166.00
		<b>Cost of materials (Sub-total)</b>			4388.00
(b)		Storage @ 3%			131.64
(c)		Contingency @ 3%			131.64
(d)		Overhead charges @10%			438.80
		<b>Expenditure on materials (Sub-total)</b>			5090.08
(e)		Cost of Labour			1862.25
(f)		Cost of Transportation			1086.14
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>2948.39</b>
(g)		Supervision charges on cost of labour and transportation @10%			294.84
		<b>Expenditure to be recovered (Grand total)</b>			8333.31
				<b>Rounded to</b>	<b>8350.00</b>

(Rupees Eight Thousand Three Hundred and Fifty only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Providing LT stay

SI.No	Qty	Particulars	Rate	Unit	Amount
1	1.0	LT stay set	646.00	set	646.00
2	0.5	Bolt & Nut of sizes	91.00	kg	45.50
		<b>Cost of materials (Sub-total)</b>			<b>691.50</b>
(b)		Storage @ 3% of cost of materials			20.75
(c)		Contingency @ 3%of cost of materials			20.75
(d)		Overhead charges @10%of cost of materials			69.15
		<b>Expenditure on materials (Sub-total)</b>			<b>802.14</b>
(e)		Cost of labour			567.55
(f)		Cost of transportation,loading &unloading			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>760.14</b>
(g)		Supervision charges on cost of labour and transportation @10%			76.01
					<b>1638.29</b>
				<b>Rounded to</b>	<b>1650.00</b>

(Rupees One Thousand Six Hundred and Fifty only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Providing HT stay

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	Stay set complete	834.00	set	834.00
2	1	Bolt & Nut of sizes	91.00	kg	91.00
(a)		<b>Cost of materials (Sub-total)</b>			925.00
(b)		Storage @ 3%			27.75
(c)		Contingency @ 3%			27.75
(d)		Overhead charges @10%			92.50
		<b>Expenditure on materials (Sub-total)</b>			<b>1073.00</b>
(e)		Cost of labour			821.43
(f)		Transportation,loading &unloading			192.59
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>1014.02</b>
(g)		Supervision charges on cost of labour and transportation @10%			<b>101.40</b>
		<b>Expenditure to be recovered (Grand total)</b>			<b>2188.42</b>
		<b>Rounded to</b>			<b>2200.00</b>
<b>(Rupees Two Thousand and Two Hundred only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Reconductoring 1 conductor of LT line with ACSR Rabbit

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1050	ACSR Rabbit	43.13	M	45286.50
(a)		<b>Cost of materials (Sub-total)</b>			<b>45286.50</b>
(b)		Storage @ 3% of cost of materials			1358.60
(c)		Contingency @ 3%of cost of materials			1358.60
(d)		Overhead charges @10%of cost of materials			4528.65
		<b>Expenditure on materials (Sub-total)</b>			<b>52532.34</b>
(e)		Cost of labour			13253.36
(f)		Cost of transportation			406.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>13659.36</b>
		Supervision charges on cost of labour and transportation @10%			1365.94
	60	Cost of taken back materials (assuming AAC/AAAC) 1000x60 gm	124.00	kg	7440.00
		<b>Grand Total</b>			<b>60117.64</b>
		<b>Expenditure to be recovered per metre</b>			<b>60.12</b>
				<b>Rounded to</b>	<b>60.00</b>
<b>(Rupees Sixty Only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Reconductoring 1 conductor of LT line with ACSR Weasel

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1050	ACSR Weasel	26.79	M	28124.25
(a)		<b>Cost of materials (Sub-total)</b>			28124.25
(b)		Storage @ 3% of cost of materials			843.73
(c)		Contingency @ 3%of cost of materials			843.73
(d)		Overhead charges @10%of cost of materials			2812.43
		<b>Expenditure on materials (Sub-total)</b>			<b>32624.13</b>
(e)		Cost of labour			13182.36
(f)		Transportation,loading &unloading			406
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>13588.36</b>
		Supervision charges on cost of labour and transportation @10%			1358.84
60		Cost of taken back materials (assuming AAC/AAAC) 1000x60 gm	124.00	kg	<b>7440.00</b>
				<b>Grand Total</b>	<b>40131.33</b>
				<b>Expenditure to be recovered per metre</b>	40.13
				<b>Rounded to</b>	<b>40.00</b>
<b>(Rupees Forty Only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Reconductoring 1km HT line with ACSR Raccoon

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	3150	ACSR Raccoon	64.28	M	202482.00
(a)		<b>Cost of materials (Sub-total)</b>			202482.00
(b)		Storage @ 3% of cost of materials			6074.46
(c)		Contingency @ 3%of cost of materials			6074.46
(d)		Overhead charges @10%of cost of materials			20248.20
		<b>Expenditure on materials (Sub-total)</b>			234879.12
(e)		Cost of labour			49706.46
(f)		Cost of Transportation, loading &unloading			2748.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>52454.46</b>
		Supervision charges on cost of labour and transportation @10%			5245.45
	204	Cost of taken back materials (assuming ACSR Mink) 1000x204 gm	104.00	kg	<b>21216.00</b>
		<b>Grand Total</b>			<b>271363.02</b>
		<b>Expenditure to be recovered per metre</b>			<b>271.36</b>
		<b>Rounded to</b>			<b>275.00</b>
<b>(Rupees Two Hundred and Seventy Five only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Reconductoring 1 km HT line with ACSR Rabbit

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	3150	ACSR Rabbit	43.13	M	135859.50
(a)		<b>Cost of materials (Sub-total)</b>			135859.50
(b)		Storage @ 3% of cost of materials			4075.79
(c)		Contingency @ 3%of cost of materials			4075.79
(d)		Overhead charges @10%of cost of materials			13585.95
		Expenditure on materials (Sub-total)			157597.02
(e)		Cost of labour			44598.55
(f)		Transportation,loading &unloading			2748.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>47346.55</b>
(g)		Supervision charges on cost of labour and transportation @10%			4734.66
	204	Cost of taken back materials (Assuming ACSR Mink) 1000x204gm	104.00	kg	<b>21216.00</b>
<b>Grand Total</b>					<b>188462.23</b>
<b>Expenditure to be recovered per metre</b>					<b>188.46</b>
<b>Rounded to</b>					<b>190.00</b>
<b>(Rupees One Hundred and Ninety only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Adding one conductor (ACSR Rabbit) on the existing poles (where cross arm is available)

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1050	ACSR Rabbit	43.13	M	45287.55
2	14	LT Shackle insulators set	60.00	set	840.00
3	21	LT pin insulator set	57.00	set	1197.00
4	21	Packing clamp for pin insulator	19.10	E	401.10
5	LS	Provision for sectionalizing	1789.52	LS	1789.52
(a)		Cost of materials (sub-total)			<b>49515.17</b>
(b)		Storage @ 3% of cost of materials			1485.46
(c)		Contingency @ 3%of cost of materials			1485.46
(d)		Overhead charges @10%of cost of materials			4951.52
		<b>Expenditure on materials (Sub-total)</b>			<b>57437.60</b>
(e)		Cost of labour			26680.07
(f)		Cost of transportation			406.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>27086.07</b>
(g)		Supervision charges on cost of labour and transportation @10%			2708.61
		<b>Grand Total</b>			<b>87232.27</b>
		<b>Expenditure to be recovered per metre</b>			<b>87.23</b>
		<b>Rounded to Rs.</b>			<b>90.00</b>
<b>(Rupees Ninety only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Adding one conductor (ACSR Rabbit) on the existing poles (where cross arm is not available)

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1050	ACSR Rabbit	43.13	M	45287.55
2	35	2 line Xarm	196.00	E	6860.00
3	35	Clamp G.I for LT cross arm (2/4 line)	83.00	E	2905.00
4	14	LT Shackle set	60.00	set	840.00
5	21	LT pin insulator set	57.00	set	1197.00
6	21	Packing clamp for pin insulator	19.10	E	401.10
7	LS	Provision for sectionalizing	1789.52	LS	1789.52
8	15	Bolts and Nuts	91.00	kg	1365.00
(a)		Cost of materials (sub-total)			<b>60645.17</b>
(b)		Storage @ 3% of cost of materials			1819.36
(c)		Contingency @ 3%of cost of materials			1819.36
(d)		Overhead charges @10%of cost of materials			6064.52
		<b>Expenditure on materials (Sub-total)</b>			<b>70348.40</b>
(e)		Cost of labour			27946.72
(f)		Cost of transportation			406.00
		<b>Cost of Labour &amp; transportation Sub-total (e&amp;f)</b>			<b>28352.72</b>
(g)		Supervision charges on cost of labour and			2835.27
		<b>Grand Total</b>			<b>101536.39</b>
		<b>Expenditure to be recovered per metre</b>			101.54
				<b>Rounded to Rs.</b>	<b>105.00</b>
<b>(Rupees One Hundred and Five only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Adding one conductor (ACSR Weasel) for 1km on the existing poles (where cross arm is available)

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1050	ACSR Weasel	26.79	M	28124.25
2	14	LT Shackle set	60.00	set	840.00
3	21	LT pin insulator set	57.00	set	1197.00
4	21	Packing Clamp for pin insulator	19.10	E	401.10
5	LS	Provision for sectionalizing	1789.52	LS	1789.52
(a)		Cost of materials (sub-total)			<b>32351.87</b>
(b)		Storage @ 3% of cost of materials			970.56
(c)		Contingency @ 3% of cost of materials			970.56
(d)		Overhead charges @ 10% of cost of materials			3235.19
		<b>Expenditure on materials (Sub-total)</b>			<b>37528.17</b>
(e)		Cost of labour			26604.07
(f)		Cost of transportation			406.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>27010.07</b>
(g)		Supervision charges on cost of labour and transportation @ 10%			2701.01
		<b>Grand Total</b>			<b>67239.25</b>
		<b>Expenditure to be recovered per metre</b>			67.24
		<b>Rounded to Rs.</b>			<b>70.00</b>
<b>(Rupees Seventy only)</b>					

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

**Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.**

**Adding one conductor (ACSR Weasel) for 1km on the existing poles (where cross arm is not available)**

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1050	ACSR Weasel	26.79	M	28124.25
2	35	2 line Xarm	196.00	E	6860.00
3	35	Clamp G.I for LT cross arm (2/4 line)	83.00	E	2905.00
4	14	LT Shackle set	60.00	set	840.00
5	21	LT pin insulator set	57.00	set	1197.00
6	21	Packing Clamp for pin insulator	19.10	E	401.10
7	LS	Provision for sectionalizing	1789.52	LS	1789.52
8	15	Bolts and Nuts	91.00	kg	1365.00
(a)		Cost of materials (sub-total)			<b>43481.87</b>
(b)		Storage @ 3%			1304.46
(c)		Contingency @ 3%			1304.46
(d)		Overhead charges @10%			4348.19
		<b>Expenditure on materials (Sub-total)</b>			<b>50438.97</b>
(e)		Cost of labour			27870.72
(f)		Cost of transportation			406.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>28276.72</b>
(g)		Supervision charges on cost of labour and transportation @10%			2827.67
		<b>Grand Total</b>			<b>81543.36</b>
		<b>Expenditure to be recovered per metre</b>			<b>81.54</b>
		<b>Rounded to Rs.</b>			<b>85.00</b>
<b>(Rupees Eighty Five only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Conversion of 1 Km of LT single phase 2 wire to LT 3 Phase 4 wire line

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	2100	ACSR Rabbit	43.13	E	90575.10
2	35	4 line Xarm	436.00	E	15260.00
3	35	Clamp G.I for LT cross arm (2/4 line)	83.00	E	2905.00
4	28	LT Shackle set	60.00	set	1680.00
5	42	LT Pin insulatorset	57.00	set	2394.00
6	42	Packing clamp for pin insulator	19.10	E	802.20
7	12	Bolts and nuts	91.00	kg	1092.00
8	4	LT lightning arrestors	350.00	E	1400.00
(a)		Cost of materials (sub-total)			<b>116108.30</b>
(b)		Storage @ 3% of cost of materials			3483.25
(c)		Contingency @ 3%of cost of materials			3483.25
(d)		Overhead charges @10%of cost of materials			11610.83
		<b>Expenditure on materials (Sub-total)</b>			<b>134685.63</b>
(e)		Cost of labour			39299.89
(f)		Cost of transportation			1624.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>40923.89</b>
(g)		Supervision charges on cost of labour and transportation @10%			4092.39
		<b>Grand Total</b>			<b>179701.91</b>
		<b>Expenditure to be recovered per metre</b>			179.70
		<b>Rounded to Rs.</b>			<b>180.00</b>
<b>(Rupees One Hundred and Eighty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Conversion of 1 Km of LT single phase 2 wire to LT three phase 5 wire line

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	2100	ACSR Rabbit	43.13	M	90575.10
2	1050	ACSR Weasel	26.79	M	28124.25
3	35	4 line Xarm	436.00	E	15260.00
4	35	Clamp G.I for LT cross arm (2/4 line)	83.00	E	2905.00
5	42	LT Shackle set	60.00	set	2520.00
6	63	Pin insulator set	57.00	set	3591.00
7	63	Packing clamp for pin insulator	19.10	E	1203.30
8	12	Bolts and nuts	91.00	kg	1092.00
9	4	LT lightning arrestors	350.00	E	1400.00
(a)		Cost of materials (sub-total)			<b>146670.65</b>
(b)		Storage @ 3% of cost of materials			4400.12
(c)		Contingency @ 3% of cost of materials			4400.12
(d)		Overhead charges @ 10% of cost of materials			14667.07
		<b>Expenditure on materials (Sub-total)</b>			<b>170137.95</b>
(e)		Cost of labour			<b>41785.24</b>
(f)		Cost of transportation			<b>2030.00</b>
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>43815.24</b>
(g)		Supervision charges on cost of labour and transportation @ 10%			<b>4381.52</b>
		<b>Grand Total</b>			<b>218334.71</b>
		<b>Expenditure to be recovered per metre</b>			<b>218.33</b>
		<b>Rounded to Rs.</b>			<b>220.00</b>
<b>(Rupees Two Hundred and Twenty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Conversion of 1Km of LT Single Phase three wire line to LT three phase 5 wire line

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	2100	ACSR Rabbit	43.13	M	90575.10
2	35	2 line Xarm	196.00	E	6860.00
3	35	Clamp G.I for LT cross arm (2/4 line)	83.00	E	2905.00
4	28	LT Shackle set	60.00	set	1680.00
5	42	LT Pin insulator set	57.00	set	2394.00
6	42	Packing clamp for pin insulator	19.10	E	802.20
7	12	Bolts and nuts	91.00	kg	1092.00
8	4	LT lightning arrestors	350.00	E	1400.00
(a)		<b>Cost of materials (sub-total)</b>			<b>107708.30</b>
(b)		Storage @ 3% of cost of materials			3231.25
(c)		Contingency @ 3%of cost of materials			3231.25
(d)		Overhead charges @10%of cost of materials			10770.83
		<b>Expenditure on materials (Sub-total)</b>			<b>124941.63</b>
(e)		Cost of labour			44556.23
(f)		Cost of transportation			2030.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>46586.23</b>
(g)		Supervision charges on cost of labour and transportation @10%			4658.62
		<b>Grand Total</b>			<b>176186.49</b>
		<b>Expenditure to be recovered per metre</b>			176.19
		<b>Rounded to Rs.</b>			<b>180.00</b>
<b>(Rupees One Hundred and Eighty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Drawing 1 km Single Phase 2 wire line under existing HT line

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	2 line Xarm	196.00	E	4704.00
2	24	Clamp G.I for 2 line cross arm	83.00	E	1992.00
3	16	LT shackles set	60.00	E.	960.00
4	32	LT pin insulator set	57.00	set	1824.00
5	32	Packing clamp for pin insulator	19.10	E	611.20
6	15	Bolt and Nuts of size	91.00	kg	1365.00
7	2100	ACSR Rabbit	43.13	M	90573.00
8	2	LT lightning Arrestor	350.00	E	700.00
9	6	Earthing complete	693.12	E	4158.72
10	LS	Provision for sectionalizing	1789.52	LS	1789.52
11	20	Composite LT spacers	58.50	E	1170.00
(a)		Cost of materials (sub-total)			<b>109847.44</b>
(b)		Storage @ 3% of cost of materials			3295.42
(c)		Contingency @ 3%of cost of materials			3295.42
(d)		Overhead charges @10%of cost of materials			10984.74
		<b>Expenditure on materials (Sub-total)</b>			<b>127423.03</b>
(e)		Cost of labour			16931.84
(f)		Cost of transportation			812.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>17743.84</b>
(g)		Supervision charges on cost of labour and transportation @10%			<b>1774.38</b>
		<b>Grand Total</b>			<b>146941.25</b>
		<b>Expenditure to be recovered per metre</b>			<b>146.94</b>
		<b>Rounded to Rs.</b>			<b>150.00</b>
<b>(Rupees One Hundred and Fifty only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Drawing 1 km Single Phase 3 wire line under existing HT line

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	4 line Xarm	436.00	E	10464.00
2	24	Clamp G.I for LT cross arm (2/4 line)	83.00	E	1992.00
3	24	LT Shackles set	60.00	E	1440.00
4	48	LT Pin insulatorset	57.00	set	2736.00
5	48	Packing clamp for pin insulator	19.10	E	916.80
6	20	Bolt and Nuts of size	91.00	kg	1820.00
7	2100	ACSR Rabbit	43.13	M	90573.00
8	1050	ACSR Weasel	26.79	M	28129.50
9	2	LT Lightning Arrestor	350.00	E	700.00
10	6	Earthing complete	693.12	E	4158.72
11	LS	Provision for sectionalising	1789.52	LS	1789.52
12	20	Composite LT spacers	58.50	E	1170.00
(a)		<b>Cost of materials (sub-total)</b>			<b>145889.54</b>
(b)		Storage @ 3% of cost of materials			4376.69
(c)		Contingency @ 3%of cost of materials			4376.69
(d)		Overhead charges @10%of cost of materials			14588.95
		<b>Expenditure on materials (Sub-total)</b>			<b>169231.87</b>
(e)		Cost of labour			30055.03
(f)		Cost of transportation			1218.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>31273.03</b>
(g)		Supervision charges on cost of labour and transportation @10%			3127.30
		<b>Grand Total</b>			<b>203632.19</b>
		<b>Expenditure to be recovered per metre</b>			<b>203.63</b>
		<b>Rounded to Rs.</b>			<b>205.00</b>
<b>(Rupees Two Hundred and Five only)</b>					



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Drawing 1 km 3 phase 4 wire line under existing HT line

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	4 line Xarm	436.00	E	10464.00
2	24	Clamp G.I for LT cross arm (2/4 line)	83.00	E	1992.00
3	32	LT Shackles set	60.00	E	1920.00
4	64	LT Pin insulator set	57.00	set	3648.00
5	64	Packing clamp for pin insulator	19.10	E	1222.40
6	20	Bolt and Nuts of sizes	91.00	Kg	1820.00
7	3150	ACSR Rabbit	43.13	M	135859.50
8	1050	ACSR Weasel	26.79	M	28129.50
9	6	LT Lightning Arrestor	350.00	E	2100.00
10	6	Earthing complete	693.12	E	4158.72
11	LS	Provision for sectionalizing	1789.52	LS	1789.52
12	20	Composite LT spacers	58.50	E	1170.00
(a)		<b>Cost of materials (sub-total)</b>			<b>194273.64</b>
(b)		Storage @ 3% of cost of materials			5828.21
(c)		Contingency @ 3%of cost of materials			5828.21
(d)		Overhead charges @10%of cost of materials			19427.36
		<b>Expenditure on materials (Sub-total)</b>			<b>225357.42</b>
(e)		Cost of labour			34179.92
(f)		Cost of transportation			1624.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>35803.92</b>
(g)		Supervision charges on cost of labour and transportation @10%			3580.39
		<b>Grand Total</b>			<b>264741.73</b>
		<b>Expenditure to be recovered per metre</b>			264.74
		<b>Rounded to Rs.</b>			<b>265.00</b>

(Rupees Two Hundred and Sixty Five only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Drawing 1 km three phase 5 wire line under existing HT line

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	4 line Xarm	436.00	E	10464.00
2	24	Clamp G.I for LT cross arm (2/4 line)	83.00	E	1992.00
3	24	2 line Xarm	196.00	E	4704.00
4	24	Clamp G.I for LT cross arm (2/4 line)	83.00	E	1992.00
5	40	LT Shackles set	60.00	E	2400.00
6	80	LT Pin insulator set	57.00	set	4560.00
7	80	Packing clamp for pin insulator	19.10	E	1528.00
8	30	Bolt and Nuts of sizes	91.00	kg	2730.00
9	3150	ACSR Rabbit	43.13	M	135859.50
10	2100	ACSR Weasel	26.79	M	56259.00
11	6	LT Lightning Arrestor	350.00	E	2100.00
12	6	Earthing complete	693.12	E	4158.72
13	LS	Provision for sectionalising	1789.52	LS	1789.52
14	20	Composite LT spacers	58.50	E	1170.00
(a)		Cost of materials (sub-total)			<b>231706.74</b>
(b)		Storage @ 3% of cost of materials			6951.20
(c)		Contingency @ 3%of cost			6951.20
(d)		Overhead charges @10%of cost of materials			23170.67
		<b>Expenditure on materials (Sub-total)</b>			<b>268779.82</b>
(e)		Cost of labour			38304.81
(f)		Cost of transportation			2030.00
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>40334.81</b>
(g)		Supervision charges on cost of labour and transportation @10%			<b>4033.48</b>
		<b>Grand Total</b>			<b>313148.10</b>
		<b>Expenditure to be recovered per metre</b>			313.15
		<b>Rounded to Rs.</b>			<b>315.00</b>

(Rupees Three Hundred and Fifteen only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Construction of 1 km LT Single Phase 2 Wire line

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	28	8m PSC pole	2645.00	E	74060.00
2	35	2 line Xarm	196.00	E	6860.00
3	35	Clamp G.I for LT cross arm (2/4 line)	83.00	E	2905.00
4	28	LT Shackles set	60.00	E	1680.00
5	42	LT Pin insulator set	57.00	set	2394.00
6	42	Packing clamp for pin insulator	19.10	E	802.20
7	15	Bolt and Nuts of size	91.00	kg	1365.00
8	28	LT stay set	646.00	set	18088.00
9	2100	ACSR Rabbit	43.13	M	90573.00
10	4	Clamp for 2 Nos. strut	152.88	E	611.52
11	2	LT Lightning Arrestor	350.00	E	700.00
12	6	Earthing complete	693.12	E	4158.72
13	LS	Provision for sectionalising	1789.52	LS	1789.52
14	20	Composite LT spacers	58.50	E	1170.00
(a)		Cost of materials (sub-total)			<b>207156.96</b>
(b)		Storage @ 3% of cost of materials			6214.71
(c)		Contingency @ 3%of cost			6214.71
(d)		Overhead charges @10%of cost of materials			20715.70
		<b>Expenditure on materials (Sub-total)</b>			<b>240302.07</b>
(e)		Cost of labour			75051.52
(f)		Cost of transportation			17283.29
		<b>Cost of labour &amp; transportation</b>			<b>92334.81</b>
(g)		Supervision charges on cost of labour and			9233.48
		<b>Grand Total</b>			<b>341870.36</b>
		<b>Expenditure to be recovered per metre</b>			341.87
		<b>Rounded to Rs.</b>			<b>345.00</b>

(Rupees Three Hundred and Forty Five only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Construction of 1 Km of LT Single Phase 3 Wire line

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	28	8m PSC Pole	2645.00	E	74060.00
2	35	4 line Xarm	436.00	E	15260.00
3	35	Clamp G.I for LT cross arm (2/4 line)	83.00	E	2905.00
4	42	LT Shackles set	60.00	E	2520.00
5	63	LT Pin insulator set	57.00	set	3591.00
6	63	Packing clamp for pin insulator	19.10	E	1203.30
7	20	Bolt and Nuts of size	91.00	kg	1820.00
8	4	Clamp for 2 Nos. strut	161.70	E	646.80
9	28	Stay set complete	646.00	set	18088.00
10	2100	ACSR Rabbit	43.13	M	90573.00
11	1050	ACSR Weasel	26.79	M	28129.50
12	2	LT Lightning Arrestor	350.00	E	700.00
13	6	Earthing complete	693.12	E	4158.72
14	LS	Provision for sectionalising	1789.52	LS	1789.52
15	20	Composite LT spacers	58.50	E	1170.00
(a)		Cost of materials (sub-total)			<b>246614.84</b>
(b)		Storage @ 3% of cost of materials			7398.45
(c)		Contingency @ 3% of cost of materials			7398.45
(d)		Overhead charges on (e) & (f) above @10%			24661.48
		<b>Expenditure on materials (Sub-total)</b>			<b>286073.21</b>
(e)		Cost of labour			74908.30
(f)		Cost of transportation			17689.29
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>92597.59</b>
(g)		Supervision charges on cost of labour and transportation @10%			9259.76
		<b>Grand Total</b>			<b>387930.56</b>
		<b>Expenditure to be recovered per metre</b>			387.93
		<b>Rounded to Rs.</b>			<b>390.00</b>

(Rupees Three Hundred and Ninety only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Construction of 1 km of LT three phase 4 wire line

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	28	8 M PSC pole	2645.00	E	74060.00
2	35	4 line Xarm	436.00	E	15260.00
3	35	Clamp G.I for 4 line cross arm	83.00	E	2905.00
4	56	LT Shackles set	60.00	E	3360.00
5	84	LT Pin insulator set	57.00	set	4788.00
6	84	Packing clamp for pin insulator	19.10	E	1604.40
7	20	Bolt and Nuts of size	91.00	kg	1820.00
8	28	Stay set	646.00	set	18088.00
9	3150	ACSR Rabbit	43.13	M	135859.50
10	1050	ACSR Weasel	26.79	M	28129.50
11	4	Clamp for 2 Nos. strut	161.70	E	646.80
12	6	LT Lightning Arrestor	350.00	E	2100.00
13	6	Earthing complete	693.12	E	4158.72
14	LS	Provision for sectionalising	1789.52	LS	1789.52
15	LS	Provision for helically formed fitting	7896.10	LS	7896.10
16	20	Composite LT spacers	58.50	E	1170.00
(a)		Cost of materials (sub-total)			<b>303635.54</b>
(b)		Storage @ 3% of cost of materials			9109.07
(c)		Contingency @ 3%of cost of materials			9109.07
(d)		Overhead charges @10%of cost of materials			30363.55
		<b>Expenditure on materials (Sub-total)</b>			<b>352217.22</b>
(e)		Cost of labour			79448.22
(f)		Cost of transportation			18095.29
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>97543.51</b>
(g)		Supervision charges on cost of labour and transportation @10%			9754.35
		<b>Grand Total</b>			<b>459515.08</b>
		<b>Expenditure to be recovered per metre</b>			459.52
		<b>Rounded to Rs.</b>			<b>460.00</b>

(Rupees Four Hundred and Sixty Only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Construction of 1 km of LT three phase 5 wire line

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	28	8 M PSC Pole	2645.00	E	74060.00
2	35	4 line Xarm	436.00	E	15260.00
3	35	Clamp G.I for LT Cross Arm (2/4 line)	83.00	E	2905.00
4	35	2 line Xarm	196.00	E	6860.00
5	35	Clamp G.I for LT Cross Arm (2/4 line)	83.00	E	2905.00
6	70	LT Shackles set	60.00	E	4200.00
7	105	LT Pin insulator set	57.00	set	5985.00
8	105	Packing Clamp for Pin insulator	19.10	E	2005.50
9	30	Bolt and Nuts of size	91.00	kg	2730.00
10	28	Stay set complete	646.00	set	18088.00
11	3150	ACSR Rabbit	43.13	M	135859.50
12	2100	ACSR Weasel	26.79	M	56259.00
13	4	Clamp for 2 Nos. strut	161.70	E	646.80
14	6	LT Lightning Arrestor	350.00	E	2100.00
15	6	Earthing complete	693.12	E	4158.72
16	LS	Provision for sectionalising	1789.52	LS	1789.52
17	20	Composite LT spacers	58.50	E	1170.00
(a)		Cost of materials (sub-total)			<b>336982.04</b>
(b)		Storage @ 3% of cost of materials			10109.46
(c)		Contingency @ 3% of cost			10109.46
(d)		Overhead charges @ 10% of cost of materials			33698.20
		<b>Expenditure on materials (Sub-total)</b>			<b>390899.17</b>
(e)		Cost of Labour			87426.19
(f)		Cost of transportation			18501.29
		<b>Cost of Labour &amp; transportation Sub-total (e&amp;f)</b>			<b>105927.48</b>
(g)		Supervision charges on cost of labour and transportation @ 10%			10592.75
		<b>Grand Total</b>			<b>507419.39</b>
		<b>Expenditure to be recovered per metre</b>			507.42
		<b>Rounded to Rs.</b>			<b>510.00</b>
<b>(Rupees Five Hundred and Ten only)</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Construction of 1km of 11kV line using ACSR Rabbit (without tree cutting compensation )

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	9m PSC Pole	3830.00	E	91920.00
2	16	V cross arm	928.00	E	14848.00
3	16	Clamp G.I for V Cross Arm	158.00	E	2528.00
4	27	MS Cleat	63.00	E	1701.00
5	90	Washers of sizes	6.25	E	562.50
6	50	Bolt and Nuts of size	91.00	kg	4550.00
7	21	Stay set complete	1164.00	set	24444.00
8	3150	ACSR Rabbit	43.13	M	135859.50
9	125	Angles and channels	84.70	kg	10587.50
10	27	Tension set with single disc	532.00	set	14364.00
11	16	Provision for coil earthing	507.10	E	8113.60
12	48	11 KV Pin insulator set	127.00	E	6096.00
13	16	Pole top bracket	112.00	E	1792.00
14	8	Provision for pipe earthing	2627.50	set	21020.00
(a)		Cost of materials (sub-total)			<b>338896.10</b>
(b)		Storage @ 3% of cost of materials			10166.88
(c)		Contingency @ 3%of cost			10166.88
(d)		Overhead charges @10%of cost of materials			33889.61
		<b>Expenditure on materials (Sub-total)</b>			<b>393119.48</b>
(e)		Cost of labour			149308.93
(f)		Cost of transportation			20392.44
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>169701.37</b>
(g)		Supervision charges on cost of labour and transportation @10%			16970.14
		<b>Grand Total</b>			<b>579790.98</b>
		<b>Expenditure to be recovered per metre</b>			579.79
		<b>Rounded to Rs.</b>			<b>580.00</b>

(Rupees Five Hundred and Eighty Only)

Note: 1 Amount required for PTCC Clearance 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 approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Construction of 1Km of 11KV line using ACSR Raccoon (with out tree cutting compensation ) using

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	9m PSC pole	3830.00	E	91920.00
2	16	V cross arm	928.00	E	14848.00
3	16	Clamp G.I for V Cross Arm	158.00	E	2528.00
4	27	MS Cleat	63.00	E	1701.00
5	90	Washers of sizes	6.25	E	562.50
6	50	Bolt and Nuts of size	91.00	kg	4550.00
7	21	Stay set complete	1164.00	set	24444.00
8	3150	ACSR Raccoon	64.28	M	202482.00
9	125	Angles and channels	84.70	kg	10587.50
10	27	Tension set with single disc	532.00	set	14364.00
11	16	Provision for coil earthing	507.10	E	8113.60
12	48	11 KV Pin insulator set	127.00	E	6096.00
13	16	Pole top bracket	112.00	E	1792.00
14	8	Provision for pipe earthing	2627.50	set	21020.00
(a)		Cost of materials (sub-total)			<b>405008.60</b>
(b)		Storage @ 3% of cost of materials			12150.26
(c)		Contingency @ 3%of cost of			12150.26
(d)		Overhead charges @10%of cost of materials			40500.86
		<b>Expenditure on materials (Sub-total)</b>			<b>469809.98</b>
(e)		Cost of labour			152727.73
(f)		Cost of transportation			20392.44
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>173120.17</b>
(g)		Supervision charges on cost of labour and transportation @10%			17312.02
		<b>Grand Total</b>			<b>660242.16</b>
		<b>Expenditure to be recovered per metre</b>			660.24
		<b>Rounded to Rs.</b>			<b>660.00</b>

**(Rupees Six Hundred and Sixty only)**

Note: 1 Amount required for PTCC Clearance 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 approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Laying 1 km of HT XLPE UG Cable (3x300 mm<sup>2</sup> single run)

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1.05	3x300 sq.mm XLPE UG Cable	981189.00	km	1030248.45
2	3	3x300 Sq mm XLPE end termination kit	2335.00	E	7005.00
3	2	3x300 sq. mm XLPE st. joint kit	4767.00	E	9534.00
(a)		<b>Cost of materials (Sub-total)</b>			1046787.45
(b)		Storage @ 3% of cost of materials			31403.62
(c)		Contingency @ 3% of cost of materials			31403.62
(d)		Overhead charges @10% of cost of materials			104678.75
		<b>Expenditure on materials (Sub-total)</b>			<b>1214273.44</b>
(e)		Cost of labour			668416.10
(f)		Cost of transportation			13880.23
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>682296.33</b>
(g)		Supervision charges on cost of labour and transportation @10%			68229.63
		<b>Grand total</b>			<b>1964799.41</b>
		<b>Expenditure to be recovered per metre</b>			1964.80
		<b>Rounded to Rs.</b>			<b>2000.00</b>

(Rupees Two Thousand only)

Note: Road cutting, restoration, PTCC Clearance and other charges extra if any.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Construction of 1 Km of 11KV line using ACSR Racocon with A Pole (with out tree cutting compensation )

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	A pole -10m	12894.00	E	309456.00
2	16	V cross arm	928.00	E	14848.00
3	16	Clamp G.I for V Cross Arm	158.00	E	2528.00
4	27	MS Cleat	63.00	E	1701.00
5	90	Washers of sizes	6.25	E	562.50
6	50	Bolt and Nuts of size	91.00	kg	4550.00
7	21	Stay set complete	1164.00	set	24444.00
8	3150	ACSR Racocon	64.28	M	202482.00
9	125	Angles and channels	84.70	kg	10587.50
10	27	Tension set with single disc	532.00	set	14364.00
11	16	Provision for coil earthing	507.10	E	8113.60
12	48	11 KV pin insulator set	127.00	E	6096.00
13	16	Pole top bracket	112.00	E	1792.00
14	8	Provision for pipe earthing	2627.50	set	21020.00
(a)		Cost of materials (sub-total)			<b>622544.60</b>
(b)		Storage @ 3% of cost of materials			18676.34
(c)		Contingency @ 3%of cost of materials			18676.34
(d)		Overhead charges @10%of cost of materials			62254.46
		<b>Expenditure on materials (Sub-total)</b>			<b>722151.74</b>
(e)		Cost of labour			173880.78
(f)		Cost of transportation,loading & unloading			26662.88
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>200543.66</b>
(g)		Supervision charges on cost of labour and transportation @10%			20054.37
		<b>Grand Total</b>			<b>942749.77</b>
		<b>Expenditure to be recovered per metre</b>			942.75
				<b>Rounded to</b>	<b>945.00</b>

(Rupees Nine Hundred and Forty Five only)

Note: 1 Amount required for PTCC Clearance 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 approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Construction of 1km of 11kV line using ACSR Racocon with 4 Legged tower (with out provision for tree cutting compensation )

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	24	4 legged pole -10 M	43500.00	E	1044000.00
2	24	3 M channel cross arm	1967.00	E	47208.00
3	24	Clamp G.I for channel cross arm	83.00	E	1992.00
4	27	MS Cleat	63.00	E	1701.00
5	90	Washers of sizes	6.25	E	562.50
6	50	Bolt and Nuts of size	91.00	kg	4550.00
7	3150	ACSR Raccoon	64.28	M	202482.00
8	125	Angles and channels	84.70	kg	10587.50
9	27	Tension set with single disc	532.00	set	14364.00
10	16	Provision for coil earthing	507.10	E	8113.60
11	48	11 KV Pin insulator set	127.00	E	6096.00
12	16	Pole top bracket	112.00	E	1792.00
13	8	Provision for pipe earthing	2627.50	set	21020.00
(a)		<b>Cost of materials (sub-total)</b>			<b>1364468.60</b>
(b)		Storage @ 3% of cost of materials			40934.06
(c)		Contingency @ 3%of cost of materials			40934.06
(d)		Overhead charges @10%of cost of			136446.86
		<b>Expenditure on materials (Sub-total)</b>			<b>1582783.58</b>
(e)		Cost of labour			165593.34
(f)		Cost of transportation,loading &unloading			32048.48
(g)	24	Providing concrete muffing for 4 leg tower	3762.30		90295.20
		<b>Cost of labour &amp; transportation, including muffing Sub-total (e&amp;f)</b>			<b>287937.02</b>
(h)		Supervision charges on cost of labour and transportation @10%			<b>28793.70</b>
		<b>Grand Total</b>			<b>1899514.29</b>
		<b>Expenditure to be recovered per metre</b>			<b>1899.51</b>
		<b>Rounded to</b>			<b>1900.00</b>

(Rupees One Thousand Nine Hundred only)

Note: 1 Amount required for PTCC Clearance 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 approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Installation of 11 kV/ 433 V, 25 kVA Transformer

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	25 kVA Transformer	81908.00	E	81908.00
2	2	9 M PSC Pole	3830.00	E	7660.00
3	8	Channel cross arm 3 M	1967.00	E	15736.00
4	8	Clamp G.I for channel cross arm	93.00	E	744.00
5	15	Bolt & Nut of sizes	91.00	kg	1365.00
6	40	Washers of sizes	6.25	E	250.00
7	1	11 kV AB Switch 400 A	12041.00	E	12041.00
8	3	D. O. Fuse unit	1249.00	E	3747.00
9	3	11 kV Lightning Arrestor	298.00	E	894.00
10	5	Provision for pipe earthing	2627.50	E	13137.50
11	1	Provision for Jumpering	1248.46	LS	1248.46
12	1	Provision for clamping	475.28	LS	475.28
13	3	Fuse unit 63A	269.36	E	808.08
14	1	Distribution Box	3142.00	LS	3142.00
15	2	Statutory Boards	13.20	E	26.40
16	5	2 line X arm	196.00	E	980.00
17	5	Clamp G.I for 2 line cross arm	83.00	E	415.00
18	1	Lock & Key	143.00	E	143.00
19	30	LT XLPE Al. 1X50 sq mm unarmoured cable	47.00	M	1410.00
20	16	Al socket 50 sq.mm.	7.35	E	117.60
(a)		<b>Cost of materials (Sub-total)</b>			<b>146248.32</b>
(b)		Storage @ 3% of cost of materials			4387.45
(c)		Contingency @ 3% of cost of materials			4387.45
(d)		Overhead charges @10% of cost of materials			14624.83
		<b>Expenditure on materials (Sub-total)</b>			<b>169648.05</b>
(e)		Cost of labour			24812.33
(f)		Cost of transportation			5015.42
		<b>Cost of labour &amp; transportation Sub-total (e&amp;f)</b>			<b>29827.75</b>
(g)		Supervision charges on cost of labour and			2982.77
		<b>Expenditure to be recovered (Grand total)</b>			<b>202458.57</b>
				<b>Rounded to Rs.</b>	<b>202500.00</b>

(Rupees Two Lakh Two Thousand and Five Hundred only)

Note: Amount required for PTCC Clearance shall be collected extra.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Installation of 1 No. 11 kV/ 433 V, 100 kVA Transformer without stay

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	100 kVA Transformer	155944.00	E	155944.00
2	2	9 M PSCpole	3830.00	E	7660.00
3	8	Channel cross arm 3M	1967.00	E	15736.00
4	8	Clamp G.I for channel cross crm	93.00	E	744.00
5	15	Bolts and Nuts of sizes	91.00	kg	1365.00
6	40	Washers of sizes	6.25	E	250.00
7	1	AB Switch 11 kV 400 A	12041.00	E	12041.00
8	3	D O Fuse unit	1249.00	E	3747.00
9	3	11 KV LT Lightning Arrestor	298.00	E	894.00
10	5	Provision for earthing	2756.55	E	13782.75
11	1	Provision for jumpering	1248.46	LS	1248.46
12	1	Provision for clamping	475.28	LS	534.38
13	6	Fuse unit 200A	727.00	E	4362.00
14	1	Distribution box	3142.00	LS	3142.00
15	2	Statutory boards	13.20	E	26.40
16	5	2 line X arm	196.00	E	980.00
17	4	Clamp G.I for 2 line cross arm	83.00	E	332.00
18	1	Lock and key	143.00	E	143.00
19	60	LT XLPE Al 1X95 sq mm unarmoured cable	73.00	M	4380.00
20	25	Al socket 95 sq mm	10.92	E	273.00
(a)		<b>Cost of materials (Sub-total)</b>			<b>227584.99</b>
(b)		Storage @ 3% of cost of materials			6827.55
(c)		Contingency @ 3% of cost of materials			6827.55
(d)		Overhead charges @10% of cost of materials			22758.50
		<b>Expenditure on materials (Sub-total)</b>			<b>263998.59</b>
(e)		Cost of labour			26268.40
(f)		Cost of transportation			5015.42
		<b>Cost of labour &amp; transportation</b>			<b>31283.82</b>
(g)		Supervision charges on cost of labour and			3128.38
		<b>Expenditure to be recovered (Grand total)</b>			<b>298410.79</b>
				<b>Rounded to Rs.</b>	<b>298450.00</b>

(Rupees Two Lakhs Ninety Eight Thousand and Four Hundred and Fifty only)

Note: Amount required for PTCC Clearance shall be collected extra.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Installation of 1 No. 11 kV/ 433 V, 160 kVA Transformer without stay (pole mounted)

Sl.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	160 kVA transformer	227505.00	E	227505.00
2	2	9M PSC pole	3830.00	E	7660.00
3	1	Constructing plinth	36489.32	E	36489.32
4	6	Channel cross arm 3M	1967.00	E	11802.00
5	6	Clamp G.I for channel cross arm	93.00	E	558.00
6	15	Bolts and Nuts of size	91.00	Kg	1365.00
7	40	Washers of sizes	6.25	E	250.00
8	1	11 kV AB switch	12041.00	E	12041.00
9	3	D O Fuse unit	1249.00	E	3747.00
10	3	11 kV LT Lightning Arrestor	298.00	E	894.00
11	5	Provision for earthing	2756.55	E	13782.75
12	1	Provision for jumpering	1248.46	Ls	1248.46
13	1	Provision for clamping	475.28	Ls	475.28
14	9	Fuse unit 200A	727.00	E	6543.00
15	1	Distribution Box	3142.00	Ls	3142.00
16	2	Statutory Boards	13.20	E	26.40
17	4	2 line X arm	196.00	E	784.00
18	4	G.I clamp for 2 line cross arm	83.00	E	332.00
19	1	Lock and key	143.00	E	143.00
20	90	LT XLPE AL 1X120 sq mm unarmoured cable	90.00	M	8100.00
21	34	Al socket 120 sq mm	16.48	E	560.32
(a)		<b>Cost of materials (Sub-total)</b>			<b>337448.53</b>
(b)		Storage @ 3% of cost of materials			10123.46
(c)		Contingency @ 3% of cost of materials			10123.46
(d)		Overhead charges @10% of cost of materials			33744.85
		<b>Expenditure on materials (Sub-total)</b>			<b>391440.29</b>
(e)		Cost of labour			26450.16
(f)		Cost of transportation			5015.42
		<b>Cost of labour &amp; transportation</b>			<b>31465.58</b>
(g)		Supervision charges on cost of labour and transportation @10%			3146.56
		<b>Expenditure to be recovered (Grand total)</b>			<b>426052.43</b>
				<b>Rounded to Rs.</b>	<b>426100.00</b>

( Rupees Four Lakhs Twenty Six Thousand and One Hundred only)

Note: Amount required for PTCC Clearance shall be collected extra.

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

67 Installation of 11 kV/433V 250 kVA Transformer					
SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	250 KVA transformer	237130.00	E	237130.00
2	2	9M PSC pole	3830.00	E	7660.00
3	1	Constructing plinth	36489.32	E	36489.32
4	6	Channel cross arm 3m	1967.00	E	11802.00
5	6	Clamp G.I for channel cross arm	93.00	E	558.00
6	15	Bolt and Nut of size	91.00	kg	1365.00
7	40	Washers of sizes	6.25	E	250.00
8	1	11 kV AB switch	12041.00	E	12041.00
9	3	D O Fuse unit	1249.00	E	3747.00
10	3	11 KV Lightning Arrestor	298.00	E	894.00
11	5	Provision for earthing	2756.55	E	13782.75
12	1	Provision for jumpering	1248.46	LS	1248.46
13	1	Provision for clamping	475.28	LS	475.28
14	9	Fuse unit 300A	1073.00	E	9657.00
15	1	Distribution box	3142.00	LS	3142.00
16	2	Statutory boards	13.20	E	26.40
17	4	2 line X arm	196.00	E	784.00
18	4	Clamp G.I for 2 line cross arm	83.00	E	332.00
19	1	Lock and key	143.00	E	143.00
19	90	11V XLPE Al 1X50 sq mm unarmoured cable	167.00	M	15030.00
20	34	Al Socket 50 sq mm	7.35	E	249.90
(a)		<b>Cost of materials (Sub-total)</b>			<b>356807.11</b>
(b)		Storage @ 3% of cost of materials			10704.21
(c)		Contingency @ 3% of cost of materials			10704.21
(d)		Overhead charges @10% of cost of materials			35680.71
		<b>Expenditure on materials (Sub-total)</b>			<b>413896.25</b>
(e)		Cost of labour			29954.77
(f)		Cost of transportation			6137.42
		<b>Cost of labour &amp; transportation</b>			<b>36092.19</b>
(g)		Supervision charges on cost of labour and			3609.22
		<b>Expenditure to be recovered (Grand total)</b>			<b>453597.66</b>
				<b>Rounded to Rs.</b>	<b>453600.00</b>
<b>(Rupees Four Lakhs Fifty Three Thousand and Six Hundred only)</b>					
Note: Amount required for PTCC Clearance shall be collected extra.					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Installation of 1 No.11 kV/ 433 V , 500 kVA, Transformer

SI.No	Qty	Particulars	Rate Rs	Unit	Amount Rs
1	1	500 kVA Transformer	487294.00	E	487294.00
2	2	9M PSC Pole	3830.00	E	7660.00
3	1	Construction of Plinth	29800.66	E	29800.66
4	6	Channel cross arm 3M	1967.00	E	11802.00
5	6	Clamp G.I for channel cross arm	93.00	E	558.00
6	15	Bolt & Nut of sizes	91.00	kg	1365.00
7	40	Washers of sizes	6.50	E	260.00
8	1	11 kV AB Switch	12041.00	E	12041.00
9	3	D. O. Fuse unit	1249.00	E	3747.00
10	3	11 kV Lightning Arrestor	298.00	E	894.00
11	5	Provision for earthing	2756.55	E	13782.75
12	1	Provision for jumpering	1248.46	LS	1248.46
13	1	Provision for clamping	475.28	LS	475.28
14	12	Fuse unit 300 A	1073.00	E	12876.00
15	1	Distribution box	3142.00	LS	3142.00
16	2	Statutory boards	13.20	E	26.40
17	4	2 line X arm	436.00	E	1744.00
18	4	Clamp G.I for 2 line Cross Arm	83.00	E	332.00
19	1	Lock & Key	143.00	E	143.00
20	120	LT XLPE Al 1X240 sq mm, unarmoured cable	239.00	M	28680.00
21	43	Al. socket 240 sq.mm.	44.80	E	1926.40
(a)		<b>Cost of materials (Sub-total)</b>			<b>619797.95</b>
(b)		Storage @ 3% of cost of materials			18593.94
(c)		Contingency @ 3% of cost of materials			18593.94
(d)		Overhead charges @10% of cost of materials			61979.80
		<b>Expenditure on materials (Sub-total)</b>			<b>718965.62</b>
(e)		Cost of labour			42805.15
(f)		Cost of transportation			6137.42
		<b>Cost of labour &amp; transportation</b>			<b>48942.57</b>
(g)		Supervision charges on cost of labour and			4894.26
		<b>Expenditure to be recovered (Grand total)</b>			<b>772802.45</b>
				<b>Rounded to Rs.</b>	<b>772850.00</b>

(Rupees Seven Lakhs Seven Two Thousand Eight Hundred and Fifty only)

Note: Amount required for PTCC Clearance shall be collected extra.



## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Installation of DA compatible Extensible type Ring Main Unit without VCB - CCC (E)

SI No.	Qty.	Particulars	Rate (Rs)	Unit	Amount (Rs)
1	1	Cost of 11 KV DA Compatible outdoor extensible type RMU with 3 load break switches	267337.00	E	267337.00
2	2	Cost of providing earthing	2756.55	set	5513.10
(a)		Cost of materials (sub-total)			<b>272850.10</b>
(b)		Storage @ 3% of cost of materials			8185.50
(c)		Contingency @ 3%of cost of materials			8185.50
(d)		Overhead charges @10%of cost of materials			27285.01
		<b>Expenditure on materials (Sub-total)</b>			<b>316506.12</b>
(e)		Cost of Labour			13062.40
(f)		Cost of transportation			7176.00
		Cost of construction of foundation, handling, erection, conveyance and allignment			77105.00
		<b>Cost of Labour &amp; transportation Sub-total (e&amp;f)</b>			<b>97343.40</b>
(g)		Supervision charges on cost of labour & transportation@10%			9734.34
		<b>Expenditure to be recovered (Grand Total)</b>			<b>423583.86</b>
				<b>Rounded to Rs.</b>	<b>423600.00</b>

(Rupees Four Lakhs Twenty Three Thousand and Six Hundred only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

## Installation of DA compatible Extensible type Ring Main Unit with VCB - CTC (E)

SI No.	Qty.	Particulars	Rate (Rs)	Unit	Amount (Rs)
1	1	Cost of 11 KV DA Compatible outdoor extensible type RMU with 2 load break switches	322511.00	E	322511.00
2	2 .	Cost of providing earthing	2627.50	set	5255.00
(a)		Cost of materials (sub-total)			<b>327766.00</b>
(b)		Storage @ 3% of cost of materials			9832.98
(c)		Contingency @ 3%of cost of materials			9832.98
(d)		Overhead charges @10%of cost of materials			32776.60
		<b>Expenditure on materials (Sub-total)</b>			<b>380208.56</b>
(e)		Cost of Labour			6531.20
(f)		Cost of transportation			7176.00
(g)		Cost of construction of foundation, handling, erection, conveyance and			77105.00
		<b>Cost of Labour &amp; transportation Sub-total (e,f &amp; g)</b>			<b>90812.20</b>
(g)		Supervision charges on cost of labour & transportation@10%			9081.22
		<b>Expenditure to be recovered (Grand Total)</b>			<b>480101.98</b>
				<b>Rounded to Rs.</b>	<b>480150.00</b>
<b>(Rupees Four Lakhs Eighty Thousand One Hundred and Fifty only )</b>					

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Installation of DA compatible Extensible add-on type Ring Main Unit without VCB (Single Switch C-Extension)

Sl No.	Qty.	Particulars	Rate (Rs)	Unit	Amount (Rs)
1	1	Cost of RMU extensible on both sides with motors for remote switching and DA Compatible	178880.00	E	178880.00
2	1	Cost of bus bars, bolts/nuts, jointing solvents, covering materials, sleeves etc. for connecting the add on unit	25000.00	set	25000.00
(a)		Cost of materials (sub-total)			<b>203880.00</b>
(b)		Storage @ 3% of cost of materials			6116.40
(c)		Contingency @ 3%of cost of materials			6116.40
(d)		Overhead charges @10%of cost of materials			20388.00
		<b>Expenditure on materials (Sub-total)</b>			<b>236500.80</b>
(e)		Cost of Labour			16328.00
(f)		Cost of transportation			7176.00
(g)		Cost of construction of foundation, handling, erection, conveyance and allignment			77105.00
(h)		Cost of labour for connecting bus- bars to the existing RMUs / new extension's heat shrinkable covers, applying water resistant compound etc.			15700.00
		<b>Cost of Labour &amp; transportation Sub-total (e,f,g &amp; h)</b>			<b>116309.00</b>
(i)		Supervision charges on cost of labour & transportation@10%			11630.90
		<b>Expenditure to be recovered (Grand Total)</b>			<b>364440.70</b>
				<b>Rounded to Rs.</b>	<b>364450.00</b>

(Rupees Three Lakhs Sixty Four Thousand Four Hundred and Fifty only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Installation of DA compatible, Extensible, add-on type Ring Main Unit with VCB (Single Switch T-Extension)

Sl No.	Qty.	Particulars	Rate (Rs)	Unit	Amount (Rs)
1	1	Cost of RMU extensible on both sides with motors for remote switching and DA Compatible	241280.00	E	241280.00
2	1	Cost of bus bars, bolts/nuts, jointing solvents, covering materials, sleeves etc. for connecting the add on unit	25000.00	Set	25000.00
(a)		Cost of materials (sub-total)			<b>266280.00</b>
(b)		Storage @ 3% of cost of materials			7988.40
(c)		Contingency @ 3%of cost of materials			7988.40
(d)		Overhead charges @10%of cost of materials			26628.00
		<b>Expenditure on materials (Sub-total)</b>			<b>308884.80</b>
(e)		Cost of Labour			16328.00
(f)		Cost of transportation			7176.00
(g)		Cost of construction of foundation, handling, erection, conveyance and allignment			77105.00
(h)		Cost of labour for connecting bus- bars to the existing RMUs / new extension's heat shrinkable covers, applying water resistant compound			15700.00
		<b>Cost of Labour &amp; transportation Sub-total (e,f,g &amp; h)</b>			<b>116309.00</b>
(j)		Supervision charges on cost of labour & transportation@10%			11630.90
		<b>Expenditure to be recovered (Grand Total)</b>			<b>436824.70</b>
				<b>Rounded to Rs.</b>	<b>436850.00</b>

(Rupees Four Lakhs Thirty Six Thousand Eight Hundred and Fifty only)

## KERALA STATE ELECTRICITY REGULATORY COMMISSION

Cost Data of Distribution works approved by the Commission for K.S.E.B.Ltd for the financial year 2016-17.

Installation of DA compatible Extensible type Ring Main Unit with provision for isolation and earthing facility (GCG)

Sl No.	Qty.	Particulars	Rate (Rs)	Unit	Amount (Rs)
1	1	Cost of RMU with load break switches and facility to connect two 11kV cable and earthing facility on both sides (GCG)	191776.00	E	191776.00
2	2	Cost for providing earthing	2627.50	Set	5255.00
(a)		Cost of materials (sub-total)			<b>197031.00</b>
(b)		Storage @ 3% of cost of materials			5910.93
(c)		Contingency @ 3%of cost of materials			5910.93
(d)		Overhead charges @10%of cost of materials			19703.10
		<b>Expenditure on materials (Sub-total)</b>			<b>228555.96</b>
(e)		Cost of Labour			13062.40
(f)		Cost of transportation			7176.00
(g)		Cost of construction of foundation, handling, erection, conveyance and allignment			77105.00
		<b>Cost of Labour &amp; transportation Sub-total (e&amp;f)</b>			<b>97343.40</b>
(h)		Supervision charges on cost of labour & transportation@10%			9734.34
		<b>Expenditure to be recovered (Grand Total)</b>			<b>335633.70</b>
				<b>Rounded to Rs.</b>	<b>335650.00</b>

(Rupees Three LakhsThirty Five Thousand Six Hundred and Fifty only)