

വൈദ്യുതി പോസ്റ്റുകളിൽ കേബിളുകൾ സ്ഥാപിക്കൽ.

ചോദ്യം

ശ്രീ. എൻ. ഷംസുദ്ദീൻ :

ഉത്തരം

ശ്രീ. ആര്യാടൻ മുഹമ്മദ്  
(ഊർജ്ജ വകുപ്പു മന്ത്രി)

(എ) റോഡുകളിൽ പോസ്റ്റുകൾ സ്ഥാപിച്ചോ, വൈദ്യുതി പോസ്റ്റുകളിലൂടെയോ കേബിളുകൾ വലിയ്ക്കുന്നതിനുള്ള വ്യവസ്ഥകൾ എന്തെല്ലാമാണ് ; ഇതിന് സെസ് ഇടാക്കുന്നുണ്ടോ ; എങ്കിൽ ഒരു വർഷം പ്രസ്തുത ഇനത്തിൽ എത്ര തുക ലഭിക്കുന്നുണ്ട് ;

(എ) കേരള സംസ്ഥാന ഇലക്ട്രിസിറ്റി ബോർഡിന്റെ 18.10.2002-ലെ ഉത്തരവ് പ്രകാരം വൈദ്യുതി പോസ്റ്റുകളിൽ കൂടി കേബിളുകൾ വലിക്കുന്നതിന് മാർഗ്ഗ നിർദ്ദേശങ്ങൾ പുറപ്പെടുവിച്ചിരുന്നു. ഈ ഉത്തരവിന്റെ പകർപ്പ് അനുബന്ധമായി ചേർക്കുന്നു.

ഒരു പോസ്റ്റിൽ കൂടി ഒന്നിലധികം കേബിളുകൾ വലിക്കുന്നതിന് അനുവദിച്ചു കൊണ്ട് 31.12.2014-ൽ ബോർഡ് ഉത്തരവ് പുറപ്പെടുവിച്ചിട്ടുണ്ട്.

പുതിയ മാർഗ്ഗ നിർദ്ദേശങ്ങൾ തയ്യാറാക്കുന്നതിന് ഒരു കമ്മിറ്റി രൂപീകരിക്കുകയും പ്രാരംഭ നടപടികൾ ആരംഭിക്കുകയും ചെയ്തിട്ടുണ്ട്. വൈദ്യുതി പോസ്റ്റുകളിലൂടെ കേബിളുകൾ വലിക്കുന്നതിന് കേബിൾ ടി.വി. ഓപ്പറേറ്റർ- മാരിൽ നിന്നും 2014-15 സാമ്പത്തിക വർഷം 12.21 കോടി രൂപ മെയിന്റനൻസ് ചാർജ്ജിനത്തിൽ പിരിഞ്ഞു കിട്ടിയിട്ടുണ്ട്. സെസ്സ് എന്ന പേരിൽ കെ.എസ്.ഇ.ബി. ഒരു തുകയും ഇടാക്കുന്നില്ല.

(ബി) പ്രസ്തുത കേബിളുകൾ പൊട്ടിയും താഴ്ന്നും കിടക്കുന്നത് വഴി വാഹനയാത്രക്കാർക്കും കാൽ നടക്കാർക്കും ഉണ്ടാകുന്ന അപകടങ്ങൾ ശ്രദ്ധയിൽപ്പെട്ടിട്ടുണ്ടോ ; എങ്കിൽ ഇതൊഴിവാക്കാൻ ആവശ്യമായ നടപടി സ്വീകരിക്കുമോ ?

(ബി) ഇത്തരം സാഹചര്യങ്ങൾ ശ്രദ്ധയിൽപ്പെടുമ്പോൾ ആവശ്യമായ നടപടികൾ സ്വീകരിച്ചു വരുന്നുണ്ട്. കേബിളുകൾ വലിക്കുന്നതിനോടനുബന്ധിച്ച് സ്വീകരിക്കേണ്ട സുരക്ഷാ മാനദണ്ഡങ്ങളും പ്രസ്തുത മാർഗ്ഗ നിർദ്ദേശങ്ങളിൽ ഉൾപ്പെടുത്തിയിട്ടുണ്ട്.

സെക്ഷൻ ഓഫീസർ.

120 0002/12000  
U.P. 00-10-2952

# KERALA STATE ELECTRICITY BOARD

## Abstract

Guidelines for drawing Cable TV-Communication Network along LT electric posts - Orders Issued-

### CORPORATE PLANNING SECTION

B.O.No.(FB)1421/2002(CP/R&P/Plg.V/CableTV/2002), Thiruvananthapuram, Dtd:18/10/02

- Read:- (1) B.O. No. 3250/98 LA 11/10645/97 dated. 22.10.98  
(2) Proceeding of the Board Meeting on 27/9/2002 vide Agenda item No. 236/2002.  
(3) B.O. No. (FB) 1389/2002(CP/R&P/Plg V/Cable TV/2002) dated 16.10.2002

## ORDER

The Board had earlier issued orders in the Board Order read as first paper regarding the guidelines pertaining to drawing of Cable TV-Communication Network-LT-electric poles.

2. The Board had reviewed the issue in detail in its meeting held on 27/9/2002 and the procedure to be followed in such cases was issued in the Board Order read as third paper. It was also mentioned therein that the guidelines will be issued separately.
3. Accordingly the Board is pleased to issue the guidelines for drawing cables for TV network along the LT poles of KSEB which is appended to this order.
4. This order supercedes all previous Board Orders on the subject.

(By order of the Board)

Sd/-

T.S. MOHAN KUMAR  
SECRETARY

To

The Chief Engineer (Distribution South/Central/North)

## APPENDIX

### GUIDE LINES FOR CABLE TV COMMUNICATION NETWORKS ALONG LT ELECTRIC POLES

#### General conditions, Technical Standards and Safety Guide Lines

Competitive tenders in sealed covers super scribed "Tender for permission to draw Radio Requency/Fibre Optic Cables along LT Electric Poles" are invited from registered cable TV operators for getting permission to draw their lines (here in after called Cables) thorough electric poles owned by the Kerala State Electricity Board, in accordance with the safety standards followed Internationally, the Indian Electricity Act -1910, Electricity Rules - 1956, Electricity (Supply) Act - 1948, PTCC codes and relevant Indian and International standard specifications.

#### General Conditions

- a) The basic principle of selection for granting permission to use KSE Board electric posts for Cables will be on tender-cum-auction basis.
- b) Rates shall be quoted per pole per year. Auction will be held before opening the tenders. After opening the tenders, the highest tendered rate shall be compared with the highest auctioned rate. The higher of the two rates shall be accepted subject to approval of the concerned Chief Engineer (Distribution). Rates not below the floor rates fixed by the Board per pole shall be quoted. Those who have submitted valid tenders alone will be allowed to participate in the auction.
- c) Poles that are not in use by cable TV operators shall only be offered for tender. Tenders will have to be submitted for all poles offered in a particular Electrical Division. The Executive Engineer of the concerned Electrical Division shall have right to determine the minimum number of poles for which a tender can be submitted. The particular date for inviting tenders in a particular division shall be fixed by the concerned Executive Engineer.
- d) The selected tenderer/bidder shall execute an agreement with KSEB and should furnish a security deposit of 10% of the total annual rent

quoted. The period of contract shall be fixed in such a way that it may extend upto ten years with the condition that the rates shall be increased by 12.5% every year. The EMD collected earlier will be adjusted in the security deposit. The Security Deposit and EMD will bear no interest. The Security Deposit will be forfeited in case of breach of any of the agreement conditions. Security Deposit will be returned only after dismantling the cable.

- e) Rent for poles for each year for the period covered under the agreement will have to be paid in advance. The advance for the first year shall be remitted on the date of execution of agreement in cash/DD payment and for the succeeding years should be made on or before the 10<sup>th</sup> of the month in which the one year period expires.
- f) In case of failure to remit each years rent in advance, interest @ 24% will be charged for the same. If the dues with interest are not remitted within three months, the agreement will be terminated, security forfeited and other suitable actions as decided by the Boards will be taken against the defaulted cable operator including dismantling of the cables.
- g) EMD @ 2.5% of the total annual rent in the form of cash/D.D shall be remitted by the tenderers along with the application.
- h) Any financial loss caused to the Board while installing the cable, either by damage to Boards property or power failure have to be borne by the selected cable TV operator.
- i) In case of any difference or dispute relating to or arising out of the above agreement, the same shall be referred to the concerned Chief Engineer (Distribution) for decision and the decision thereon will be final and binding on the parties.
- j) The Cable TV operator will indemnify and keep harmless the Board against any expenses that may be incurred in connection with any suit or other proceedings filed in any court or before any authority in respect of any matter related to and/or arising out of the distribution of TV cable of such operator using the poles of KSEB.

- k) The Board will not have any liability in respect of claims under Workmen's Compensation Act or otherwise made by the employees under cable TV operators consequent on any accident during their course of employment under him.
- i) The cable TV operator alone shall be responsible for payment of compensation for the death/injury, if any, caused to any person including employees of KSEB and for the loss caused to properties of any other person due to any accident that may occur by the malfunctioning/improper maintenance/nonstandard construction of the cable TV network.
- ii) The cable TV operator has no right to transfer/sell/assign his right under the license/sanction issued by the Board to draw cable TV to any person under any circumstances without prior permission/sanction from the Board. In case the cable TV operator transfers his right under the license/sanction without the permission of the Board, the Board has the right to revoke/cancel the license/sanctions issued to the cable TV operator.
- l) (i) Whenever maintenance works of electric lines by KSEB are necessary, the Board has the right to direct the cable TV operators to remove cable TV lines temporarily so as to carry out the maintenance work within the time limits specified by KSEB. After completion of the work the cable TV operators are at liberty to reconnect the same at their cost. In case the cable TV operator fail to remove the lines within the specified time limit, the Board shall be free to remove the same through suitable persons and to realize its cost from the cable TV operators. The cable TV operators who fail to remove the cable TV lines, in spite of the directions of the Board Officials are not entitled for reconnection of the line without permission of the Board.
- (ii) In case the cables in any pole is required to be removed permanently for any bonafide use of the Board, the Board has the right to direct the cable TV operators to remove the cable TV lines permanently within a specified time limit. If the cable TV operators fail to remove the lines in spite of the directions of the Board officials, they are not entitled for reconnection of the lines without permission of the Board.

- m) The Board will not be responsible for any interruption and/or interference caused to the quality of either video/audio signals, due to the proximity of 11KV or 66KV or other High Tension lines to the Cables or other reasons.
- n) Written permission should be obtained from the concerned Electrical Section/Electrical Sub Division before commencement of the work of drawing of Cables through utility poles. At the time of execution of such works the permit to work issued by Asst. Engineer/Asst. Executive Engineer concerned should be made available at the work site and should be produced on demand by the competent Board staff or Board's officers. No maintenance of such cables shall be allowed on electric poles from 6PM to 8AM except on emergency situations. The directions given by the AE/AEE in this regard shall be complied with.
- o) The cables and other equipment used in the cable network should be of approved quality and conform to the standards of IS:14131 (part 1):1994, IS:14264:1995, IS:14131(part 1):1994 and IS:14131 part(2): 1995. The list of equipments, methods of drawing of Cables and steps taken for maintenance of such Cables should be got approved by the Electrical Inspector of the respective District.
- p) The network shall be subject to periodical inspection by the Electrical Inspector under intimation to Boards officials and its fee or other charges for such inspection shall be borne by the cable TV operator.
- q) Statement giving details of number of customers, length of cable Network, number of power connections availed for amplifiers, area of jurisdiction of the supplier (Electrical section/Sub Division) shall be furnished to the Chief Electrical Inspector when called for.
- r) Details of the Cable TV subscribers including name, address etc. shall be maintained at the administrative office and made available when called for.
- s) The Asst. Engineer/Asst. Exe. Engineer concerned should certify that the work has been done as per the technical standards and guidelines

specified and that the cable TV operators has adhered to the directions stipulated.

- t) Any false declaration in the application will make the application liable for rejection.
- u) Any deviation or breach of the guideline will annul the agreement.

### Technical Standards and Safety Guidelines

1. A minimum ground clearance of 3050 mm shall be maintained for Cables taken along the street.
2. When Cables are drawn across the road a minimum ground clearance of 5800 mm shall be maintained.
3. A minimum vertical clearance of <sup>1200</sup>1020 mm shall be maintained for cables from the lowest Power conductor.
4. Keeping in view of the above referred ground and line clearances, the specifications regarding insulation and spacing shall be as per IS: 13420 part(1): 1994 and IEC:728-1: 1986 for "Cabled Distribution Systems" and to prevent co-channel and cross channel interference and RF Ingress, only one cable/network per electric pole shall be permitted. This would also greatly limit the problems relating to electric line maintenance work for the KSEB personnel and cable maintenance for the TV network.
5. High Tensile, stranded bare hot dip galvanized steel wire having minimum breaking strength of 350 kg shall be used as bearer wire. Alternatively PVC insulated GI wire or messengered RF cable of the same breaking strength shall be used.
6. Porcelain tension and pin Insulators suitable for medium voltage installation shall be used for supporting and stringing the bearer wire.
7. The bearer wire shall be sectionalized and shall not exceed four spans. Each section of the bearer wire shall be provided with duplicate earthing, by earthing the beginning and end of each section. Sectionalizing shall also be done at places where interlinking are given for power lines.

8. No. 8 SWG GI wires shall be used for earthing. Earthing shall be done using proper contacts at both ends of the GI wire. Earth electrodes shall be of 38 mm dia and 2500 mm long, Class-B GI pipe. The earth wire shall be connected to the pipe using GI bolts, nuts and washers for proper contact. The connection to the bearer wire for earthing shall be made by Britannia joint.
9. The pole clamp assembly shall be fixed to the utility pole, such that, a minimum horizontal clearance of 130mm is maintained between the bearer wire and pole. The clamps shall be hot dip galvanized to resist corrosion.
10. The Cables shall be bound or lashed to the bearer wire using PVC coated GI wire or spiral band at intervals of 1250mm.
11. The Cables should conform to Indian Standard IS: 14131 (Part I) 1994 for "Radio Frequency Cables" and IS: 14131 (Part II) 1994 "Particular Requirements for single unit coaxial cables for use in cable television system" or, its equivalent International Spn. Of IEC or ASTM or DIN or BSS.
12. The Cables shall, be mechanically sturdy, lightweight, electrically insulated and of low resistance and low attenuation at higher frequencies. The electrical insulation shall be rated for 650 V. The Cables shall maintain a minimum clearance of 130 mm from the utility pole, support bracket etc. A minimum clearance of 1200 mm shall be maintained from 11KV distribution transformer, switchgear etc. Expansion loops shall be provided at supports to prevent unrestrained movement of cables.
13. As per Electrical Inspectorate guidelines usage of a higher voltage above 110 Volt, line amplifiers is hazardous and dangerous for the network TV subscribers. Therefore, the booster amplifier used in the Network shall be powered by independent KSEB power connections. The operating voltage of the amplifier, shall not exceed 110 Volts and powered by low voltage double wound isolation transformers of 240 Volts single phase and controlled by a MCB. The power cubicle with separate KSEB meter shall be effectively earthed using standard earth electrodes.



14. Customer drop Cables shall be taken only through standard tap-off box installed at the support poles, and drop cable shall be supported on separate bearer wire tied to the poles. The bearer wire carrying the drop cable shall be strung to suitable non-metallic point at the consumer's premises. The bearer wire carrying the drop cable shall be connected to the main bearer using Britannia Joint. Under no circumstances shall the drop cable be taken along the trunk sub distribution RF cable and feed without isolation tap-off.
15. The connectors used shall be tropicalised and weather proof and made of material with lowest co-efficient of expansion to avoid loose contact. Connectors at the customer premises shall be fully insulated and shock proof.
16. AC Power block shall be provided to the drop cable brought to the customers premises to make the connection shock proof. The capacitors used for AC broking shall be 2KVAR rating and the capacitance value shall be 220 pf to 470 pf.
17. Erection of cables and subsequent maintenance of the Network shall be carried out under the supervision of the authorized person of the utility adopting all safety precautions.
18. When crossing public private property, necessary sanction from appropriate agency shall be obtained.
19. Safety provision under the Indian Electricity Act 1910, Indian Electricity Rules 1956, Electricity (Supply) Act 1948 shall be strictly adhered to.

- 09. Details of the KSEB Electrical Sections where permission is required
- 10. Date from which the Cable TV Network is operating
- 11. Copy of last years audited balance sheet (To enclose)
- 12. No. of connected subscribers
- 13. No. and list of channels being provided
- 14. Network Capacity - Network RF range (State within 30 MHz to 1 GHz)
  - (b) Whether proposed as ISP?
  - Reverse flow/Internet capable
  - (d) No. of reverse amplifiers
  - (e) Reverse flow/Internet Bandwidth allotted
- 15. (a) Type and Length of cables proposed to be used
  - (b) Make of cable proposed to be used
  - (c) Whether ISI marked
- 16. (a) No. of Amplifiers proposed to be used
  - (b) Make of Amplifiers proposed to be used
  - (c) Voltage grade
  - (d) Whether ISI marked
- 17. Details of other Equipments proposed to be used
  - (a) No. of Dishes

(Enclosure - 6)

- (b) No. of Receivers & Modulators
- (c) No. of AC Blocks used
- (d) Whether Insulated cabling
- 18. Whether Earthing as per Specification Followed
- 19. No. of Amplifiers powered
- 20. No. of power Connections and Tariff rate
- 21. Details of Qualified Personnel employed/proposed to be employed
  - (a) Engineers
  - (b) Diploma Holders
  - (c) Licensed Electrician
  - (d) Skilled Technician
- 22. Details of identification tag proposed to be used

Schedule

Name of work : Drawing of RF Cable / Optical fibre cable along LT electric poles of KSEB

Name of Division:

Sl.No	Description	Area / Street	Name of Section	No : of poles	Rate/pole/ year (Rs)	Location number of poles	Amount (Rs)
1	2	3	4	5	6	7	8
	Drawing RF cable/optical Fibre cable along LT electric poles of KSEB in accordance with safety standards, standard specifications and KSEB guidelines.	1.					
		2.					
		3.					
		4.					
		5.					
		6.					
		7.					
		8.					
		9.					
		10.					
		11.					
		12.					
		13.					
		14.					
		15.					
		16.					
		17.					
		18.					
		19.					
		20.					

Total No. of poles :

Total Amount :

**DECLARATION**

I/We \_\_\_\_\_ shall meet all the technical requirements and the terms of the Guideline of KSEB and abide by the decision of the Executive Engineer which will be binding on us

I/We the applicant(s) individual/firm/Company/ Association of persons/body of individuals \_\_\_\_\_ do hereby declare that the above facts are correct in all respects and to the best of my/our knowledge.

Place \_\_\_\_\_  
Date \_\_\_\_\_

Signature of the applicant

(Individual/Firm/Company/Association of persons/Body of individuals)

List of Enclosures to be attached

- |               |   |                            |
|---------------|---|----------------------------|
| Enclosure - 1 | : | Cable TV Regn.             |
| Enclosure - 2 | : | Application Fee            |
| Enclosure - 3 | : | Earnest Money              |
| Enclosure - 4 | : | Area Map with post numbers |
| Enclosure - 5 | : | No. of Electric Poles      |
| Enclosure - 6 | : | Balance Sheet              |

Note : \* DD should be drawn in favour of Executive Engineer, Electrical Division, \_\_\_\_\_ Kerala State Electricity Board, Payable at State Bank of Travancore \_\_\_\_\_

Any false declaration will result in rejection of the application.



സംരക്ഷണ വിഭാഗം