

15 -ാം കേരള നിയമസഭ

11 -ാം സമ്മേളനം

നക്ഷത്ര ചിഹ്നം ഇല്ലാത്ത ചോദ്യം നം. 2678

24-06-2024 - ൽ മറുപടിയ്ക്ക്

ഇലക്ട്രിക് പോസ്റ്റുകളിൽ കൂടി സ്വകാര്യ കേബിളുകൾ വലിക്കുന്നതിനുള്ള നിബന്ധനകൾ

| ചോദ്യം | | ഉത്തരം | |
|----------------------------------|--|--|--|
| ശ്രീ തോട്ടത്തിൽ രവീന്ദ്രൻ | | ശ്രീ . കെ . കൃഷ്ണൻകുട്ടി (വൈദ്യുതി വകുപ്പ് മന്ത്രി) | |
| (എ) | ഇലക്ട്രിക് പോസ്റ്റുകളിൽ കൂടി സ്വകാര്യ ടെലിവിഷൻ ചാനലുകൾക്കും മറ്റും കേബിൾ വലിക്കുന്നതിന് അനുമതി നൽകിയിട്ടുണ്ടോ; | (എ) | കെ.എസ്.ബി.എൽ.-ന്റെ ഇലക്ട്രിക് പോസ്റ്റുകളിൽ കൂടി ടെലിവിഷൻ ചാനലുകൾക്കും കേബിൾ ടി.വി. ഓപ്പറേറ്റർമാർക്കും അവരുടെ സർവീസ് കേബിളുകൾ വലിക്കുന്നതിനു അനുമതി നൽകിയിട്ടുണ്ട്. ആയതിന് ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടറേറ്റ് വകുപ്പിൽ നിന്നും സേഫ്റ്റി സർട്ടിഫിക്കറ്റ് നൽകാറുണ്ട്. |
| (ബി) | എങ്കിൽ എന്തെല്ലാം നിബന്ധനകളാണ് ഇതിനായി പാലിക്കേണ്ടത്; | (ബി) | ഇലക്ട്രിക് പോസ്റ്റുകളിൽ കൂടി ടെലിവിഷൻ ചാനലുകൾക്കും കേബിൾ ടി.വി. ഓപ്പറേറ്റർമാർക്കും അവരുടെ സർവീസ് കേബിളുകൾ വലിക്കുന്നതിനുള്ള നിബന്ധനകൾ B.O. (FB) No.1421/2002 (CP/R&P/Plg.V/CableTV/2002) Dated 18.10.2002 എന്ന ബോർഡ് ഉത്തരവിൽ പ്രതിപാദിക്കുന്നു. പ്രസ്തുത ഉത്തരവ് അനുബന്ധം-1 ആയി ചേർക്കുന്നു. ഒരു പോസ്റ്റിൽ കൂടി ഒന്നിലധികം കേബിളുകൾ വലിക്കുന്നതിന് അനുവദിച്ചുകൊണ്ട് 31.12.2014 ൽ ബോർഡ് ഉത്തരവ് പുറപ്പെടുവിച്ചിട്ടുണ്ട്. 13.01.2023 തീയതിയിലെ G.O.(MS) 1/2023/Power (അനുബന്ധം-2 ആയി ചേർക്കുന്നു) പ്രകാരമുള്ള നിബന്ധനകൾ പാലിച്ചു എന്ന് ഉറപ്പുവരുത്തിയതിന് ശേഷമാണ് ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടറേറ്റ് വകുപ്പിൽ നിന്നും ഇലക്ട്രിക് പോസ്റ്റുകളിൽ കൂടി കേബിളുകൾ വലിക്കുന്നതിനുള്ള സേഫ്റ്റി സർട്ടിഫിക്കറ്റ് നൽകാറുള്ളത് |
| (സി) | അശാസ്ത്രീയമായി കേബിളുകൾ വലിക്കുന്നത് മൂലം അപകടം ഉണ്ടാകുന്നത് ശ്രദ്ധയിൽപ്പെട്ടിട്ടുണ്ടോ; | (സി) | ശ്രദ്ധയിൽപ്പെട്ടിട്ടുണ്ട് |
| (ഡി) | എങ്കിൽ ഇതിനെതിരെ എന്തെല്ലാം നടപടികളാണ് സ്വീകരിച്ചിട്ടുള്ളതെന്ന് വ്യക്തമാക്കുമോ? | (ഡി) | ഇലക്ട്രിക് പോസ്റ്റുകളിലൂടെ കേബിളുകൾ വലിക്കുമ്പോൾ പാലിക്കേണ്ട നിബന്ധനകളിൽ അതാത് ഓപ്പറേറ്റർമാർ അവരുടെ കേബിളുകൾ ടാഗ് ചെയ്ത് അടയാളപ്പെടുത്തേണ്ടതാണ് എന്ന് നിഷ്കർഷിച്ചിട്ടുണ്ട്. കേബിളുകൾ ടാഗ് ചെയ്യാത്തവയും |

മാനദണ്ഡങ്ങൾക്കനുസൃതമല്ലാതെ നിലനിൽക്കുന്നതുമായ കേബിളുകൾ യുദ്ധകാലാടിസ്ഥാനത്തിൽ പോസ്റ്റുകളിൽ നിന്നും നീക്കം ചെയ്യാൻ ഉള്ള പ്രവൃത്തി എറണാകുളം ഇലക്ട്രിക്കൽ സർക്കിളിലെ പാലാരിവട്ടം സെക്ഷനിൽ നടത്തിയിരുന്നു. ആയതിന്റെ തുടർച്ചയായി സംസ്ഥാനമൊട്ടാകെ പ്രസ്തുത പ്രവൃത്തി വ്യാപിപ്പിക്കാൻ ഉള്ള നടപടികൾ കൈക്കൊണ്ടിട്ടുണ്ട്. പ്രസ്തുത പ്രവൃത്തി പൂർത്തീകരിക്കുന്നതോടെ മാനദണ്ഡങ്ങൾക്ക് അനുസൃതമല്ലാത്തതും അപകടാവസ്ഥയിലുള്ളതുമായ കേബിളുകൾ പോസ്റ്റുകളിൽ നിന്നും പൂർണ്ണമായി നീക്കം ചെയ്യപ്പെടുകയും, കേബിളുകളുടെ ഉടമസ്ഥരെ തിരിച്ചറിയാൻ സാധിക്കുകയും ചെയ്യുമെന്ന് പ്രതീക്ഷിക്കുന്നു.

കൂടാതെ, അപകടകരമായ വിധം കേബിളുകൾ വലിച്ചിരിക്കുന്നത് ശ്രദ്ധയിൽപ്പെടുന്ന പക്ഷം ആയത് ഉടനടി സുരക്ഷിതമായി സ്ഥാപിക്കുന്നതിനുള്ള കർശന നിർദ്ദേശം കേബിൾ ടി.വി. ഉടമകൾക്ക് നൽകുകയും, വകുപ്പിന്റെ കീഴിൽ രജിസ്റ്റർ ചെയ്തിട്ടുള്ള കേബിൾ ടി.വി. ശൃംഖലയുടെ ആനുകാലിക പരിശോധന മൂന്ന് വർഷത്തിലൊരിക്കൽ നടത്തി ന്യൂനതകൾ പരിഹരിക്കുന്നതിനുള്ള നിർദ്ദേശം ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടറേറ്റ് വകുപ്പിൽ നിന്നും നൽകുകയും ചെയ്തു വരുന്നു.

സെക്ഷൻ ഓഫീസർ

(5) (178)

KERALA STATE ELECTRICITY BOARD

Abstract

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

CORPORATE PLANNING SECTION

B.ONo.(FB)1421/2002(CP/R&P/Plg.V/CableTV/2002). Thiruvananthapuram. dtd:18/10/02

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

O R D E R

The Board had earlier issued orders in the Board Order read as first paper regarding the guidelines pertaining to drawal of Cable TV Communication Network along 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)

Copy To:

1. All Chief Engineers
2. The Financial Advisor
3. The Chief Internal Auditor
4. The Inspector General of Police (Vigilance & Security)
5. The Deputy Chief Engineer, Electrical circle.
6. The Director, MIS / The D.P. R
7. The Deputy Chief Engineer (APTS)
8. The Deputy Secretary, Law
9. The T.A. to Chairman
10. The T.A. to Member (Transmission)
11. The T.A. to Member (Distribution)
12. The T.A. Chief of Generation
13. The P.A. to Member (Finance)
14. The P.A. to Secretary
15. The Fair Copy Superintendent
16. Stock file.

Forwarded /By Order

Supriya Jasmine G

Asst. Executive Engineer

**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 Frequency / 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) through 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 up to 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 10th 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 Board 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 realise 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 inspite 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 11 KV or 66 KV or other High Tension lines to the Cables or other reasons.

n) Written permission should be obtained from the concerned Electrical Section/Electrical Sub Divsion 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 6 PM to 8 AM 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/ISI marked. The relevant ISI standards applicable being IS:13420:1994 Part I, IS:14264:1995, ISS:14131(part):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 operators.

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 Guide lines

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 1200 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 Network isolation and distortions caused by unwanted signals 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 all 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 130 mm is maintained between the bearer wire and pole. The clamps shall be hot dip galvanized to resist corrosion.
10. The Cable shall be bound or lashed to the bearer wire using PVC coated GI wire or spiral band at intervals of 1250 mm.
11. The Cables should conform to Indian Standard IS: 1431 (Part I): 1994 for "Radio Frequency Cables" and IS 14131 (part 2):1995 "Particular Requirements for single unit coaxial cables for use in cabled distribution systems" 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 11 KV 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 the 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 teed 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

contacts. 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 blocking 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.



കേരള സർക്കാർ
സംഗ്രഹം

ഊർജ്ജ വകുപ്പ് - ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടറേറ്റ് വകുപ്പിലെ പുതുക്കിയ സാങ്കേതിക മാർഗ്ഗനിർദ്ദേശങ്ങൾ അംഗീകരിച്ച് ഉത്തരവ് പുറപ്പെടുവിക്കുന്നു.

ഊർജ്ജ (എ) വകുപ്പ്

സ.ഉ.(കൈ) നം.1/2023/POWER തീയതി: തിരുവനന്തപുരം, 13-01-2023

പരാമർശം:- ചീഫ് ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടറുടെ 27.10.2022-ലെ ബി2-12440/2020/സി.ഇ.ഐ. നമ്പർ കത്ത്.

ഉത്തരവ്

വൈദ്യുത പ്രതിഷ്ഠാപനങ്ങളുമായി ബന്ധപ്പെട്ട നിലവിലെ സാങ്കേതിക മാർഗ്ഗനിർദ്ദേശങ്ങൾ കാലോചിതമായി പരിഷ്കരിക്കുന്നതിനായി KELCON, HT/EHT Consumer Association, PWD Electrical Wing, National Safety Council, ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടറേറ്റ് വകുപ്പിലെ ജില്ലാതല ഓഫീസർമാർ, പ്രസ്തുത വകുപ്പിൽ നിന്നും വിരമിച്ചതും ഇപ്പോൾ കൺസൾട്ടന്സി മേഖലയിൽ പ്രവർത്തിക്കുന്നവരുമായ വിദഗ്ദ്ധർ എന്നിവരെ ഉൾപ്പെടുത്തി രൂപീകരിച്ച കമ്മിറ്റി വൈദ്യുത മേഖലയുമായി ബന്ധപ്പെട്ട ഓരോ വിഷയത്തെക്കുറിച്ചും പഠിച്ച് വിശകലനം ചെയ്ത് നിലവിലെ സാങ്കേതിക മാർഗ്ഗനിർദ്ദേശങ്ങൾ പുതുക്കുകയും ആയതിന് അന്തിമ അംഗീകാരം നൽകുകയും ചെയ്തിട്ടുണ്ട്. പ്രസ്തുത മാർഗ്ഗനിർദ്ദേശങ്ങളിന്മേൽ പൊതുജനങ്ങളുടെ അഭിപ്രായം ആരായുകയും ആയതിന് പ്രകാരം മാറ്റങ്ങൾ വരുത്തിയ പുതുക്കിയ സാങ്കേതിക മാർഗ്ഗനിർദ്ദേശങ്ങൾ സർക്കാർ അംഗീകാരത്തിനായി പരാമർശിത കത്ത് പ്രകാരം ചീഫ് ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടർ ലഭ്യമാക്കിയിട്ടുണ്ട്.

സർക്കാർ ഇക്കാര്യം വിശദമായി പരിശോധിച്ചു. ആയതിന്റെ അടിസ്ഥാനത്തിൽ ഇതോടൊപ്പം അനുബന്ധമായി ചേർത്തിരിക്കുന്ന ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടറേറ്റ് വകുപ്പിലെ പുതുക്കിയ സാങ്കേതിക മാർഗ്ഗനിർദ്ദേശങ്ങൾ അംഗീകരിച്ച് ഉത്തരവ് പുറപ്പെടുവിക്കുന്നു.

(ഗവർണ്ണറുടെ ഉത്തരവിൻ പ്രകാരം)
കെ ആർ ജോർജ്ജ്
അഡീഷണൽ ചീഫ് സെക്രട്ടറി

ചീഫ് ഇലക്ട്രിക്കൽ ഇൻസ്പെക്ടർ, ഹൗസിംഗ് ബോർഡ് ബിൽഡിംഗ്സ്, തിരുവനന്തപുരം.
പ്രിൻസിപ്പൽ അക്കൗണ്ടന്റ് ജനറൽ (ആഡിറ്റ്) കേരള തിരുവനന്തപുരം.
അക്കൗണ്ടന്റ് ജനറൽ (എ&ഇ), കേരള, തിരുവനന്തപുരം.
നീവര പൊതുജന സമ്പർക്ക (വെബ് & ന്യൂമീഡിയ) വകുപ്പ്
കത്തൽ ഫയൽ/ഓഫീസ് കോപ്പി.

ഉത്തരവിൻ പ്രകാരം
Signed by
Mangj S
സെക്ഷൻ ഓഫീസർ
Date: 17-01-2023 12:02:15

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| 5. | The following tests shall be conducted at the time of inspection: a. PV Module: Irradiance measurement, angle of inclination, temperature of the PV module and V-I characteristics using PV Array Tester. b. Solar Inverter: Efficiency, input voltage, output voltage, power, THD, DG injection flicker etc. and anti-islanding protection. |
| 6. | While issuing sanction for energisation for Solar Energy System, following conditions to be included in addition to normal conditions: a. Consent from the licensee shall be obtained (In case of grid tied system). |
| c) scrutiny / inspection of Solar Energy System | |
| 1. | Up to 5kW solar plants, two numbers of earth electrodes are sufficient and LA shall be provided in lightning prone area. |
| 2. | Above 5kW and up to 100kW solar plants, three numbers of earth electrodes are sufficient and LA shall be provided. |
| 3. | These earth electrodes shall be interconnected to existing earth electrodes and total earth resistance shall be less than 5 Ω . |
| 4. | Equipotential bonding shall be done as per IEC TR 63227:2020. |
| 5. | Lockable CB/SFU shall be installed at the point of interconnection with the grid and should be accessible to the utility staff to isolate the system at the time of maintenance of distribution system. |

19. Communication /Optical Fibre Cable on Distribution Network Power Line Supports.

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| 1. | A minimum ground clearance of 4000mm shall be maintained for Optical Fibre cables taken along the street. |
| 2. | When cables are drawn across the road, a minimum ground clearance of 5800mm shall be maintained. |
| 3. | A minimum vertical clearance of 1200mm shall be maintained for Optical Fibre cables from lowest power conductor when run under LT lines and 2440mm from 11kV lines. |
| 4. | All Dielectric Self Supporting (ADSS) cable shall possess good performance characteristics such as anti-impact, anti-vibration, anti-bending, prevention of thermal aging, flame retardant and UV protected. |
| 5. | ADSS cable specification shall conform to the latest editions of the relevant International Electro Technical Commission (IEC), IEEE and BIS. |
| 6. | Elements consisting of ADSS cable shall be non-metallic, shall possess anti-electromagnetic, strong endurance of electrical effect and in worst case scenario no electricity should be conducted from the surface of the ADSS cable, when charged electrical conductor touches the surface of ADSS cable. |
| 7. | In work sites, all metallic equipment including hardware anchors and structures shall be common bonded together and then grounded to ensure safety. ADSS cable shall be grounded between the work area and the spans when splicing ADSS cable during wet or rainy conditions near active high voltage phase conductors for preventing dangerous leakage currents and transients from flowing through personnel. |
| 8. | Pole Attachment Hardware / Brackets and supporting assembly for Fiber Optic Cable in electric poles shall be earthed. |
| 9. | Optical Fiber Cables Should not pass through/connected to Transformer Structures |
| 10. | Maximum of two cables of all service providers put together per pole may be allowed due to technical constraints and electrical safety concern. |

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| 11. | 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. No such works shall be carried out on the electric poles from 6PM to 8 AM except on emergency situations. |
| 12. | Copy of the agreement with the KSEB Ltd/Licensee and sanction received, if any shall be forwarded while applying for Safety Certificate. |
| 13. | Optical Fibre Cables should not be run above the power lines. It should always be below power lines. |
| 14. | Pole Attachment Hardware / Brackets and supporting assembly for Optical Fibre Cable shall be fixed to the utility pole, such that, a minimum horizontal clearance of 130mm is maintained between the cable and the pole. |
| 15. | Power supply to the booster unit/Optical Amplifier unit/MUX, if required, should not be taken directly from the power lines. The primary supply to such units shall be controlled by an MCB/MCCB and 30mA rated ELCB. The power cubicle shall be effectively earthed. |
| 16. | When crossing of Public/Private Property, necessary consent from appropriate agency shall be obtained |
| 17. | The network shall be subjected to periodical inspection by the Electrical Inspector and fee for such inspection prescribed by the Government shall be paid on demand. |
| 18. | Statement giving details of number of customers, length of cable network, route map shown, number of poles, number of power connections availed for amplifiers/node, area of jurisdiction of the supplier (Electrical Section) shall be furnished to the Deputy Chief Electrical Inspector/ Electrical Inspector at the end of every financial year ending on 31st March. |
| 19. | Details of the customers, including name, address etc shall be maintained at the administrative office and made available when called for. |
| 20. | The relevant provisions of Regulation 68 & 69 of Central Electricity Authority (Measures relating to Safety and Electric Supply), Regulations, 2010 shall be strictly adhered to. |
| 21. | Safety Provision under Electricity Act 2003 and Central Electricity Authority (Measures relating to Safety and Electric Supply), Regulations, 2010 shall be strictly adhered to. |
| 22. | The installation shall conform to IS/IEC 60794: 2001. |

20. Guidelines for scrutiny / inspection of Public EV Charging Station (PEVCS)

(a) Technical

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| 1. | The minimum qualification for carrying out the installation work of a public EV charging system shall be a licensed B-Class Contractor issued by KSELB(Kerala State Electricity Licensing Board). Depending up on the capacity of the installation, eligible contractors can carry out the work. |
| 2. | All electric vehicle charging stations shall be provided with protection against the overload of input supply and output supply fittings. |
| 3. | The electric vehicle parking place shall be such that the connection on the vehicle when parked for charging shall be within five meters from the electric vehicle charging point/EVSE. |
| 4. | Suitable lightning protection system shall be provided for the electric vehicles charging stations as per Indian Standards Code IS/ IEC 62305. |
| 5. | All residual current device for the protection of supplies for electric vehicle shall, (a) have a residual operating current of not greater than 30 mA; (b) interrupt all live conductors, including the neutral; and (c) have a performance at least equal to Type A and be in conformity with IS 12640. Co-ordination of various protective devices shall be ensured. All electric vehicle charging stations shall be supplied from a sub-circuit protected by a voltage independent residual current device and also providing personal protection that is compatible with the charging supply for an electric vehicle. |
| 6. | Earthing of all electric vehicle charging stations shall be as per IS 3043:2018. |
| 7. | The cable may be fitted with an earth-connected metal shielding and the cable insulation shall be |