

**ABSTRACT**

Use of low tension Aerial Bunched Cables (ABC) for constructing low tension lines and providing service connections in future - Sanctioned - Orders issued.

CORPORATE OFFICE (SBU-D)

B.O (FTD)No.421/2021(D(D,IT&HRM)/DCC 18/2019-20) ,Thiruvananthapuram dated 03.06.2021

- Read: 1. Decision of the 15th Distribution Core Committee meeting dated 07.08.2019
2. Decision of the 18th Distribution Core Committee meeting dated 24.07.2020
3. Report of the expert subcommittee constituted to ascertain the feasibility of using low tension Aerial Bunched Cables (ABC) for constructing low tension lines and providing service connections.
4. Note No. D (D, IT&HRM)/DCC 18/2019-20) dated 5.05.2021 of the Director (Distribution, IT&HRM) to the Full Time Directors (Agenda 74/5/21)

ORDER

The 15th Distribution Core Committee meeting considered the possibility of utilising Aerial Bunched Cables (ABC) for constructing all low tension lines including service lines in future as it eliminates the threat caused to general public from snapping of bare conductor lines and its possibility of loss reduction.

Considering the obvious advantages involved, a subcommittee was formed to study the technical and economic viability of using ABC for low tension lines. The Subcommittee conducted detailed analysis of the effects of using ABC for construction of low tension lines, the optimal configuration of cables for various purposes/ areas and the technical as well as economic aspects of such use.

The 18th Distribution Core Committee discussed the report of the subcommittee in detail, various practical issues, cost implications and suggested the following.

- ✓ Aerial Bunched Cables shall be used for drawing, phase conversion and reconductoring low tension lines in future, considering the advantages of convenience, loss reduction and safety.
- ✓ All service main, i.e., lines drawn for providing service connections shall be with LT ABC from 2021 – 2022 onwards.
- ✓ The SCM wing shall be entrusted to explore the possibility of single phase ABC to be used for providing single phase connections.

- ✓ To recommend the following mix for LT lines.

3 x 70 + 1 x 16 + 1x50 – Construction of LT lines with street main.

3 x 70 + 1 x 50 – Construction of LT lines without street main.

3 x 50 + 1 x 35 – Construction of LT lines for three phase service
Connections

2 X 25 – Construction of LT lines for single phase service
Connections

- ✓ Use of satellite connectors instead of distribution boxes for taking connections from LT ABC lines.
- ✓ 10% of total LT ABC works in every section shall be carried out departmentally to make the maintenance team acquainted with the system and to build confidence.

A major central aided scheme for providing assistance to DISCOMS for Infrastructure creation including pre-paid smart metering and feeder separation, up gradation of systems, etc, tied to financial improvements, is on the anvil for which draft guidelines has already been circulated by the Ministry of Power, Government of India. Utilization of low tension Aerial Bunched Cables (ABC) for constructing low tension lines can be widely extended as part of implementation of the newly introduced centrally aided scheme for Distribution network strengthening.

The Director (D, IT & HRM) as per note read as 4th above recommended the utilisation of Low Tension Aerial Bunched Cables (ABC) for constructing low tension lines based on the suggestions of Distribution Core Committee, and also remarked that the same can be implemented extensively as part of the proposed centrally aided scheme for Distribution network strengthening. The matter was placed before the Full Time Directors for a decision.

Having considered the matter in detail, the Full Time Directors in the meeting held on 28.05.2021, resolved to approve the recommendations of the Distribution Core Committee furnished below, based on studies supported by field level viability assessments, technical analysis, stakeholder feedbacks and plant visits for implementation in distribution.

- Aerial Bunched Cables shall be used for drawing, phase conversion and reconductoring low tension lines in future, considering the advantages of convenience, loss reduction and safety fronts.
- Single phase ABC shall be used for drawing single phase service connection lines.
- The following mix of ABC shall be used for low tension lines in general.

3 x 70 + 1 x 16 + 1x50 – Construction of LT lines with street main.

3 x 70 + 1 x 50 – Construction of LT lines without street main.

3 x 50 + 1 x 35 – Construction of LT lines for three phase service
Connections

2 X 25 – Construction of LT lines for single phase service
Connections.

- Satellite connectors shall be used for taking connections from low tension ABC lines.

Further resolved to accord sanction to change construction of low tension lines in deposit work scheme and providing service connections to willing consumers to LT ABC instead of ACSR conductor in the initial stage.

Further resolved to accord sanction for the following.

- a) To entrust the Deputy Chief Engineer (TRAC) to take up the matter with Hon'ble KSERC for obtaining necessary approval of cost data for constructing low tension lines and providing service connections using LT ABC.
- b) To entrust the Chief Engineers of Distribution to assess the requirement of LT ABC/ACSR conductor and to arrange purchase of LT ABC based on the requirements.
- c) To provide proper training to field staffs to make the maintenance team of the section office acquainted with the system.
- d) To direct Chief Engineer (SCM) to reassess the purchase of ACSR conductors based on the requirements from Chief Engineers of Distribution.

Further resolved that before actual execution of the above, detailed guidelines shall be formulated regarding construction of Aerial Bunched Cable (LT) across Kerala based on the past experience.

Orders are issued accordingly.

By Order of the Full Time Directors

Sd/-

Lekha.G

Company Secretary-in charge.

To

The Chief Engineers, Distribution/ SCM/ Commercial & Planning
All Deputy Chief Engineers, Distribution/ Deputy Chief Engineer, TRAC

Copy to:

The Chief Engineer (IT, CR & CAPs)/Vigilance Officer/Legal Advisor & Disciplinary Enquiry Officer/ Chief Internal Auditor/Financial Adviser
The TA to Chairman & Managing Director
The TA to [Director (Distribution, IT& HRM / Planning, Safety & REES / Generation- Electrical, & SCM/ Transmission & System Operation / Generation- Civil]
The RAO/ECA/RCAO/The Legal Liaison Officer
The PA to Director (Finance) / C.A. to [Secretary (Administration)/ Company Secretary]
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Assistant Engineer