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IEEE Guide for the Installation of Overhead Transmission Line Conductors

IEEE Power and Energy Society

Sponsored by the
Transmission & Distribution Committee

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USA

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Abstract: General recommendations for the selection of methods, equipment, and tools that have been found to be practical for the stringing of overhead transmission line conductors and overhead groundwires are provided.

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Introduction

This introduction is not part of IEEE Std 524-2016, IEEE Guide for the Installation of Overhead Transmission Line Conductors.

This guide provides general recommendations for the selection of methods, equipment, and tools that have been found to be practical for the stringing and grounding of overhead transmission line conductors and overhead groundwires. The following revisions have been made and are intended to improve the usefulness of the document:

The definitions in 3.1 have been expanded.

The acronyms in 3.2 have been expanded. The drawings throughout the guide have been updated.

Reel handling has been expanded in 7.2.

The section on the use of the stopwatch method for sag measurements has been expanded.

The section on the use of dynamometers for sag measurements has been expanded.

Sagging on flexible structures has been expanded in 10.5.2.

The wind effects on sag measurements have been added to 10.5.14.

Aluminum conductor, steel supported has been expanded in 11.1.

T-2 conductor has been changed to its current twisted pair designation and 11.2 on TP conductors have been expanded.

Aluminum conductor composite reinforced has been added in 11.6.

Aluminum conductor composite core has been added in 11.7.

Contents

IEEE Guide for the Installation of Overhead Transmission Line Conductors

1. Overview

1.1 Scope

This guide provides general recommendations for the selection of methods, equipment, and tools that have been found to be practical for the stringing of overhead transmission line conductors and overhead groundwires. The guide also includes a comprehensive list of definitions for equipment and tools used in stringing and for stringing terms commonly employed. This guide does not address special conductors such as those used for river and canyon crossing. These conductors may be custom designed and often may require special considerations.

1.2 Purpose

The purpose of this guide is to present in one document sufficient details of present day methods, materials, and equipment to outline the basic considerations necessary for maintaining safe and adequate control of conductors during stringing operations. References are given in Clause 2 for those desiring more detailed information. Because the terminology used for many hardware items and for many stringing terms varies from place to place, a list of definitions is included to provide correlation and clarification of the terms most commonly employed.

1.3 Application

This guide is broad enough yet specific enough to be applicable to the stringing of conventional overhead transmission conductors and overhead groundwires (OHGW) of the following types: AAAC, AAC, AACSR, ACAR, ACSR, ACSR/TW, ACSS, ACCR, ACCC, CU, OPGW, aluminum-clad steel OHGW, and galvanized steel OHGW[1]. Since stringing practices for different projects will be strongly influenced by the magnitude and nature of each project and by local circumstances, alternate methods that have been successfully employed are presented. Information contained in this guide may not be sufficient for certain

[1] See 3.2 for definitions of all acronyms.