AS/NZS 7000:2016

Australian/New Zealand Standard™

Overhead line design

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-052, Electrical Energy Network, Construction and Operation. It was approved on behalf of the Council of Standards Australia on 17 March 2016 and by the Standards New Zealand Approval Board on 20 April 2016.
This Standard was published on 17 May 2016.

The following are represented on Committee EL-052:

Australian Energy Council
Australian Services Union
CIGRE
Communications, Electrical and Plumbing Union—Electrical Division
Electrical Regulatory Authorities Council
Electricity Engineers Association (New Zealand)
Energy Networks Association

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This Standard was issued in draft form for comment as DR AS/NZS 7000:2015.

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First published as AS/NZS 7000:2010.
Second edition 2016.

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, PO Box 10729, Wellington 6011.

ISBN 978 1 76035 481 7

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-052, Electrical Energy Networks, Construction and Operation.

The objective of this Standard is to provide Electricity Industry network owners, overhead line maintenance service providers, design consultants, construction contractors, structure designers, and pole manufacturers with an industry standard that replaces all previously used reference guidelines.

This Standard is one of a series of two documents—

1 *Overhead line design Standard*, which is a Standard that sets the detailed design requirements for overhead lines.

2 HB 331 *Overhead line design,* is a handbook providing supporting information, commentary, worked examples and supporting software (where applicable) for the design of overhead lines.

Statements expressed in mandatory terms in Notes to Tables and Figures are deemed to be requirements of this Standard.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendices to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

Major changes in the 2016 edition include the following:

(a) In Table 6.2, Strength Reduction Factor ϕ for Component Strength, a new category ‘Foundations designed to yield before structure’ with a range from 0.8 to 1.0 has been added. It aligns with the current embedment depths for distribution poles;

(b) In Appendix B, Paragraph B4.2, it is recommended that in region B until more definitive data is available, designers should select one higher level of line security for convective winds to achieve comparable overhead line reliability in all zones.

(c) Appendix F, Timber poles, has been made normative;

(d) A new Appendix FF, structural Test for Prototype Poles, has been added;

(e) The maximum short-circuit temperatures for conductors in Table BB4, Typical Conductor Operating Temperatures, have been revised;

(f) Additional guidelines for ice loading have been added to Appendix DD, Snow and Ice loads;

(g) In Appendix EE the hand reach clearances for poles (1200 mm to the left and right and 1700 mm to the rear) have been clarified.

(h) A number of editorial changes have been made.

CONTENTS

Page