AS/NZS 3835.2:2006

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Australian/New Zealand Standard™

Earth potential rise—Protection of telecommunications network users, personnel and plant

Part 2: Application guide

STANDARDS Australia

STANDARDS NEW ZEALAND PAEREWA AOTEAROA

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ET-007, Coordinating Committee on Power and Telecommunications. It was approved on behalf of the Council of Standards Australia on 10 April 2006 and on behalf of the Council of Standards New Zealand on 14 April 2006.
This Standard was published on 27 September 2006.

The following are represented on Committee ET-007:

Australian Communications and Media Authority
Co-opted Member
Electrical Regulatory Authorities Council
Energy Networks Association
NZCCPTS
Telecommunications Carriers

Additional Interests:

Energex
Queensland Rail
Electranet (South Australia)

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Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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PREFACE

This Standard was prepared by the joint Standards Australia/Standards New Zealand Technical Committee ET-007-01, Earth Potential Rise, Coordination of Power and Telecommunications Systems. This Standard supersedes in part the EPR Code, Issue 1, 1984 (published jointly by the Australian Telecommunications Commission ATC (now Telstra Corporation) and ESAA (now ENA Energy Network Association).

In New Zealand, this Standard supersedes the Application Guide for EPR, August 1989, published by the New Zealand Committee for the Co-ordination of Power and Telecommunications Systems (NZCCPTS).

The objective of this part of AS/NZS 3835 is to serve as an application guide for personnel responsible for safety in the application of AS/NZS 3835.1 Part 1: *Code of practice*.

Preparation of this Standard was undertaken to update the technical content of the original EPR Code and to remove those contractual and procedural matters better dealt with elsewhere.

This Standard makes reference to publications prepared by the NZCCPTS. Enquiries concerning these publications should be directed to the secretary of NZCCPTS. Contact details for the secretary and details of NZCCPTS publications are available at the web site http://www.nzccpts.co.nz. Some publications are available as free downloads from the above web site.

This Standard is Part 2 of a Series dealing with Earth Potential Rise (EPR). This Standard when complete will consist of the following parts:

AS/NZS	
3835	Earth potential rise—Protection of telecommunications network users, personnel and plant
3835.1	Part 1: Code of practice
3835.2	Part 2: Application guide (this Standard)
3835.3	Part 3: Isolation arrangements for paired cable telemetering telecontrol service in HV areas and HV sites
HB 219	Earth potential rise—Protection of telecommunications network users, personnel and plant—Worked examples for the application guide

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An informative appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to figures, are deemed to be requirements of this Standard. 'Shall' indicates a requirement is mandatory, while 'should' indicates a recommendation and good practice.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard is a guide to the application of the EPR Code of practice for the protection of persons or plant prescribed in AS/NZS 3835.1. This Standard is intended for personnel responsible for ensuring safety in a telecommunications service environment.

1.2 APPLICATION

This Standard shall be read in conjunction with AS/NZS 3835.1:2006.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1319	Safety signs for the occupational environment
60529	Degrees of protection provided by enclosures (IP Code)
AS/NZS	
3835	Earth potential rise—Protection of telecommunications network users, personnel and plant
3835.1	Part 1: Code of practice
60479	Effects of current on human beings and livestock
60479.1:2002	Part 1: General aspects
60950	Information technology equipment—Safety
60950.1	Part 1: General requirements
HB	
101	Coordination of power and telecommunications—Low Frequency Induction (LFI): Code of practice for the mitigation of hazardous voltages induced into telecommunications lines)
102	Coordination of power and telecommunications—Low Frequency Induction (LFI): Application Guide to the LFI Code
219	Earth potential rise—Protection of telecommunications network users, personnel and plant—Worked examples for the application guide
ANSI/IEEE	
81	IEEE Guide for measuring earth resistivity, ground impedance, and earth surface potentials of a ground system
ESAA	
EG1(2000)	Substation earthing guide