

Australian Standard™

Wind turbines

**Part 21: Measurement and assessment
of power quality characteristics of grid
connected wind turbines**



This Australian Standard was prepared by Committee EL-048, Wind Turbine Systems. It was approved on behalf of the Council of Standards Australia on 24 May 2006.
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The following are represented on Committee EL-048:

Australian Business Council for Sustainable Energy
Australian Electrical and Electronic Manufacturers Association
Australian Greenhouse Office, Department of the Environment and Heritage
Australian Wind Energy Association
Electrical Regulatory Authorities Council
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PREFACE

This Standard was prepared by the Standards Australia Committee EL-048, Wind Turbine Systems.

The objective of this Standard is to provide owners and operators of wind turbine systems and electricity distributors with a uniform methodology for consistency and accuracy in the measurement and assessment of the power quality characteristics of grid connected wind turbines.

This Standard has been reproduced from IEC 61400-21 Ed.1.0 (2001), *Wind turbine generator systems, Part 21: Measurement and assessment of power quality characteristics of grid connected wind turbines*. An informative annex, ZA, has been added to assist users understand the effects of wind turbines on power quality.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text 'this part of IEC 61400' should read 'this part of AS 61400'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.
- (d) The term 'rated active power P_n ' should be substituted for 'rated power P_n '.

To assist users of this Standard, the following explanations of some terms used in the Standard are provided:

Flicker: Impression of unsteadiness of visual sensation induced by a light stimulus whose luminance or spectral distribution fluctuates with time as a result of short duration fluctuations in the voltage of the electrical supply to the light source.

Power quality: A term used to describe the performance of a power supply at a given point in the electricity supply system. The term covers the variability of the system characteristics, mainly in regard to voltage, current and voltage waveform and frequency.

The terms 'normative' and 'informative' are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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