

Australian/New Zealand Standard™

Electric water heaters

Part 2: Minimum Energy Performance Standard (MEPS) requirements and energy labelling



AS/NZS 4692.2:2005

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-020, Electric Water Heating Appliances. It was approved on behalf of the Council of Standards Australia on 2 September 2005 and on behalf of the Council of Standards New Zealand on 2 September 2005. This Standard was published on 14 September 2005.

The following are represented on Committee EL-020:

Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Australian Gas Association
Australian Greenhouse Office
Australian Industry Group
Australian Stainless Steel Development Association
Business New Zealand
Certification Interests (Australia)
Department of Industry, Tourism and Resources (Commonwealth)
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-020, Electric Water Heating Appliances.

This Standard is part of a series, as follows:

AS/NZS

4692 Electric water heaters

4692.1 Part 1: Energy consumption, performance and general requirements

4692.2 Part 2: Minimum Energy Performance Standard (MEPS) requirements and labelling (this Standard)

The overall objective of the AS/NZS 4692 series of Standards is to promote high levels of quality, performance and energy efficiency of water heaters.

The Parts of AS/NZS 4692 are summarized as follows:

- (a) *Part 1* Includes performance test procedures, minimum performance requirements and a range of other requirements for water heaters. It also includes the revised test method for the determination of standing heat loss for electric storage water heaters, and the method for the determination of hot water delivery and mixed hot water delivery.
- (b) *Part 2* Includes minimum energy performance standards (MEPS) for electric storage water heaters and electric heat exchanger water heaters. Its structure is suitable for reference in regulatory legislation and it is to be used in conjunction with Part 1. This part also notes the Top Energy Saver Award label, which is now available for use on qualifying electric storage water heaters.

This is the first time a separate regulatory Standard has been published for electric storage water heaters in Australia. This edition contains the MEPS levels for mains pressure water heaters, which came into force in Australia on 1 October 1999. It contains the revised MEPS levels for small electric main pressure water heaters (<80 L), which come into force in Australia on 1 October 2005. It also includes, for the first time in Australia, new MEPS levels for other types of water heaters (vented and heat exchange water heaters), which come into effect from 1 October 2005.

New Zealand Energy Efficiency (Energy Using Products) Regulations 2002 had a commencement date of 1 February 2003 for MEPS for electric storage water heaters. The New Zealand MEPS levels apply equally to unvented and vented water heaters. In New Zealand any revision to MEPS shall be addressed by an Amendment to this Standard and subsequent gazette notice. At date of publication of this Standard, MEPS for water heaters in New Zealand regulations refer to Standards NZS 4602:1998 and NZS 4606.1:1989. It is the intention of the New Zealand government to amend the regulations to cite this Standard on 1 October 2005. Amendments to regulations will be notified through gazette notice.

On 1 February 2003 the New Zealand government introduced a temporary exemption to the TTMRA with respect to MEPS requirements for electric storage water heaters. This exemption arrangement continued until 1 February 2005. After that date the normal provisions of Trans Tasman Mutual Recognition Arrangement apply (i.e. products lawfully sold in either country shall be able to be sold in both countries).

AS/NZS 4692 now covers requirements for heat exchange water heaters that were previously covered by AS 1361.

A test method for chilled and boiling water dispensers is expected to be developed as a future part to this series of Standards. Governments have announced proposed MEPS levels for chilled and boiling water dispensers and these will be included via an amendment to this Standard once the levels are finalized.

For the purposes of registering new products for MEPS in Australia, this Standard permits either test reports undertaken to Part 1 of this series or the amended version of AS 1056.1 (including Amendment 5) or AS 1361 (including Amendment 1), as applicable.

For the purposes of listing new products for MEPS in New Zealand, this Standard permits either test reports undertaken to Part 1 of this series or NZS 4602 or NZS 4606.1, as applicable.

The MEPS levels in Part 2 (this Standard) for both Australia and New Zealand have tables or equations of allowable maximum daily heat loss for each of the relevant test methods. This Standard records the heat loss limits set by the relevant regulatory authority in each country. There has been no technical change to the MEPS levels that are already in force (prior to 2005), even though the absolute numbers appear to be different in some cases. Appendix D includes details on differences between the previous test methods for Australia and New Zealand.

This Standard is published with the approval of the combined state regulatory authorities and is structured to be suitable for reference in energy regulatory legislation. Reference is made to AS/NZS 4692.1, AS 1056.1 (as amended) and AS 1361 (as amended) for the relevant test procedures.

Water heaters subject to MEPS in Australia for the first time, or subject to more stringent MEPS on or after 1 October 2005 and claiming compliance with MEPS 2005 requirements (or MEPS subsequent to this date), require submission of registration data and records in accordance with AS/NZS 4692.1 or the amended version of AS 1056 (including Amendment 5) or AS 1361 (including Amendment 1) as applicable. MEPS registrations and records kept for new (previously unregistered) models from 1 October 2005 require test reports in accordance with the revised AS/NZS 4692.1 or the amended version of AS 1056 (Amendment 5) or AS 1361 (Amendment 1) as applicable. Existing water heater models or families that are registered to the MEPS 1999 requirements and have MEPS registrations that remain valid after 1 October 2005 may use existing test reports for re-registration purposes.

Check-testing, where applicable, will generally be undertaken to AS/NZS 4692.1 and an assessment of the results will take into account the version of the test Standard that has been used to support the MEPS registration or record for that model.

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 appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	5
1.2 APPLICATION	5
1.3 OBJECTIVE.....	5
1.4 EXCLUSIONS	6
1.5 REFERENCED DOCUMENTS	6
1.6 DEFINITIONS	6
1.7 MEASURED QUANTITIES	7
1.8 ROUNDING.....	7
SECTION 2 PERFORMANCE CRITERIA	
2.1 GENERAL	8
2.2 MINIMUM ENERGY PERFORMANCE STANDARDS	8
2.3 MAXIMUM HEAT LOSS TARGETS	9
2.4 RATED MIXED HOT WATER DELIVERY	10
2.5 MODELLING OF ENERGY CONSUMPTION.....	10
2.6 DEEMED TO COMPLY OPTIONS.....	10
2.7 MEPS VALIDITY (CHECK-TESTING).....	10
2.8 ENERGY LABELING	11
SECTION 3 APPLICATION AND TEST RESULT FORMATS	
3.1 APPLICATION FOR REGISTRATION	12
3.2 LISTING AND HOLDING OF RECORDS.....	13
APPENDICES	
A MEPS LEVELS and MAXIMUM HEAT LOSS VALUES	14
B FORMAT OF DECLARATION OF AN ELECTRICAL APPLIANCE FOR ENERGY EFFICIENCY	23
C FORMAT OF SUMMARY TEST RESULTS FOR A MEPS APPLICATION WHERE FULL TEST REPORTS ARE NOT PROVIDED	29
D TEST CONDITIONS AND RESULTS OF TESTS TO AS/NZS 4692.1 COMPARED TO PREVIOUS EDITIONS OF THE AUSTRALIAN AND NEW ZEALAND STANDARDS	31
E MODELLING WATER HEATER ANNUAL LOAD CYCLE ENERGY USE.....	33
F MEPS ALTERNATIVES WATER HEATERS	35
G COMPLIANCE TABLE FOR WATER HEATER MEPS	36
H ENERGY LABELLING	37

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard Electric water heaters

Part 2: Minimum Energy Performance Standard (MEPS) requirements and energy labelling

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies the Minimum Energy Performance Standard (MEPS) requirements for various water heaters within the scope of AS/NZS 4692.1.

It also includes target values for maximum heat loss for a range of other types of electric water heaters and information regarding a label that identifies certain types of water heaters with low heat loss.

NOTE: The MEPS levels themselves and scope of water heaters covered for Australia and New Zealand are different.

In particular, this Standard specifies the following:

- (a) Minimum Energy Performance Standard (MEPS) requirements for various water heaters.
- (b) Performance criteria that are prerequisites for MEPS compliance.
- (c) Maximum heat loss targets for a range of electric water heater types.
- (d) Top Energy Saver Award labelling option.
- (e) Energy labelling and MEPS registration application format for storage water heaters.

This Standard does not specify safety requirements.

1.2 APPLICATION

This Standard shall be read in conjunction with AS/NZS 4692.1.

In New Zealand any revision to MEPS shall be addressed by an amendment to this Standard and subsequent gazette notice.

1.3 OBJECTIVE

The objective of this Standard is to define, for a range of water heater types, mandatory performance and MEPS requirements, which have to be met prior to supply. It also defines a range of other compliance or performance options that can be utilized by manufacturers to promote their products.