



Electrical appliances and equipment

Importing, selling or hiring

EnergySafety administers laws aimed at minimising the hazards of electricity and reducing the risks of electric shock and fire associated with the use of electrical appliances and equipment. Similar legislation exists in other Australian states.

The Director of Energy Safety administers the:

- *Electricity Act 1945*;
- *Energy Coordination Act 1994*;
- Electricity Regulations 1947; and
- Electricity (Licensing) Regulations 1991.

This fact sheet summarises the laws about importing, selling or hiring electrical appliances and equipment in Western Australia.

Prescribed electrical appliances - typically household electrical appliances

The Electricity Act 1945 provides for the Director of Energy Safety to 'prescribe' the classes and types of electrical appliances that must be approved by the Director, or an interstate regulatory authority or a designated agency, before they can be sold, hired or advertised for sale or hire, or imported into Western Australia.

The 'prescribed' appliances are listed in Appendix B of Australian/New Zealand Standard AS/NZS 4417.2:2009 'Marking of electrical products to indicate compliance with regulations, Part 2: Specific requirements for electrical safety regulatory applications'.

Prescribed appliances (see appendix A on page 3) must be formally approved before they are imported, sold or hired.

Additionally, they should comply with applicable AS/NZS electrical safety standards. The responsibility to gain approval rests with the seller or hirer of the appliances.

To obtain approval, EnergySafety recommends that a test report from an independent approved testing laboratory be submitted to one of the interstate regulatory authorities or a designated agency (see page 3).

The test report must show that the appliance complies with the electrical safety requirements of the relevant Australian/New Zealand Standard.

Many imported appliances may have previously been tested to standards which exist in the country of manufacture. Often these standards are similar to the Australian Standards, which are progressively being aligned to international standards. In these cases, the importer (or a consultant engaged by the importer) may identify the differences between the Australian and international standards and test only the areas where the standards differ.

This testing may be conducted either by an Australian testing laboratory or an overseas testing laboratory recognised by the National Association of Testing Authorities or the Joint Accreditation Scheme of Australia and New Zealand or recognised by the IECCEB Scheme. An importer should contact an interstate regulatory authority before engaging a laboratory for appliance testing, to ensure that the laboratory will be acceptable and to agree to the tests required.

Electrical items that are not prescribed

Anybody who sells or hires electrical appliances or equipment which is not prescribed is responsible under common law for ensuring the items are safe to be connected to electricity supply. Assurance may be achieved by obtaining a test report from an independent testing laboratory, confirming compliance with the relevant Australian/New Zealand Standards for electrical safety. This report can be provided, if requested, to a prospective buyer, to show compliance.

Energy efficiency labelling

The *Electricity Act 1945* requires that certain new electrical appliances that are offered for sale must display a 'star rating' energy efficiency label.

These appliances include:

Types or classes of apparatus or installation (and applicable standard)	
1.	Domestic rotary clothes dryer. (AS/NZS 2442)
2.	Domestic clothes washing machine. (AS/NZS 2040)
3.	Domestic refrigerator. (AS/NZS 4474)
4.	Domestic dishwasher. (AS/NZS 2007)
5.	Single phase, non-ducted vapour compression domestic room air-conditioner. (AS/NZS 3823)
6.	Single phase, ducted, vapour compression domestic room air-conditioner not registered for 2006 MEPS requirements. (AS/NZS 3823)
7.	Television set. (AS/NZS 62087)

The energy efficiency of an appliance is determined by testing to the appropriate Australian Standard. The test report must be submitted to a regulatory authority and the label registered before the appliance may be sold.

Minimum energy performance standards

The *Electricity Act 1945* requires that certain appliances that are sold must meet specific minimum energy performance standards (MEPS) (Appendix B).

Compliance with MEPS requirements must be verified by a test report from an approved testing laboratory.

Industrial and commercial electrical appliances and equipment

Most industrial and commercial appliances and equipment are not 'prescribed', but are subject to other requirements. Examples of applicable regulation and the corresponding administrative agencies are as follows:

Electricity (Licensing) Regulations 1991

- mandate the Australian/New Zealand Standard AS/NZS 3000 Wiring Rules which details the minimum standard for electrical installations in all

types of premises, the WA Electrical Requirements (WAER) which stipulates minimum requirements for consumers' connections to electricity networks and several other key standards.

The authority is EnergySafety:
www.energysafety.wa.gov.au

Occupational Safety and Health Regulations 1996

- mandate electrical requirements on construction and work sites.

The WA authority is WorkSafe Western Australia:
www.worksafe.wa.gov.au

Mines Safety and Inspection Regulations 1995

- mandate special, additional, electrical requirements on mine sites.

The WA authority is the Department of Mines and Petroleum: www.dmp.wa.gov.au

Relevant standards e.g. AS2067 for high voltage switchgear

Designated approval agencies

Approval enquiries may be directed to one of these regulators or the designated approval agencies:

- Energy Safe Victoria www.esv.vic.gov.au
- Department of Fair Trading NSW
www.fairtrading.nsw.gov.au
- Department of Justice Queensland
www.justice.qld.gov.au
- Planning and Land Authority ACT, construction policy and regulation , www.actpla.act.gov.au
- Energy Safety New Zealand,
www.energysafety.govt.nz
- Office of technical regulator South Australia
<http://technicalregulator.sa.gov.au>
- Department of Justice, Work Place Standards Tasmania ,
www.wst.tas.gov.au/industries/electricity/safety/equip
- The Australian Gas Association
www.aga.asn.au
- International Testing and Certification Services Pty Ltd www.itacslab.com
- SGS Systems and Services Certification Pty Ltd www.sgs.com
- SAA Approvals Pty Ltd,
www.saiglobal.com
- Energy Australia trading as Testing and Certification Australia
www.tcaust.com
- UL international New Zealand
www.nz.ul.com
- BSI Management System (BENCHMARK)
www.bsigroup.com

Purchase of Australian Standards

Australian Standards may be purchased electronically from SAI Global Ltd at

www.standards.com.au or in hard copy by contacting SAI Global Ltd:

Telephone: 1300 654 646

Facsimile: 1300 654 949

Email: sales@sai-global.com

Appendix A Prescribed Articles List

Prescribed electrical appliances are listed alphabetically. Appliances are described using commonly recognised names, not necessarily the name specified in Appendix B of Australian/New Zealand Standard AS/NZS 4417.2:2009, 'Marking of electrical and electronic products to indicate compliance with regulations, Part 2: Specific requirements for electrical safety regulatory applications'.

- Appliance Plugs
- Battery Chargers
- Blankets
- Circuit Breakers, Miniature Over-Current
- Clothes Dryers
- Cord Extension Sockets
- Cords (Supply Flexible Cords)
- Decorative Lighting Outfits
- Dishwashing Machines
- Electric Fence Controllers
- Fans
- Fluorescent Lamp Ballasts
- Fluorescent Lamp Starters
- Food Preparation Machines, including:
Blenders, Juice Separators, Can Openers, Knives, Cheese Graters, Liquidisers, Coffee Grinders, Mincers, Coffee Makers, Mixers, Food Processors, Pasta Machines, Fruit Presses, Shredders, Ice Shavers, Slicers, Juice Extractors, Grillers

- Hair Care Appliances, including: Brushes, Combs, Curling Irons, Clippers
- Handlamps
- Hand Held Portable Tools, including: Cutters, Polishers/Scrubbers, Drills, Routers, Grinders, Sanders
- Heating Pads - Flexible
- Immersion Heaters (including Aquarium Immersion Heaters)
- Insect Electrocutors
- Irons
- Lampholders (Normal Bayonet type)
- Lampholders (Edison Screw)
- Lampholder Adaptors (BC)
- Lawn Mowers
- Massagers - Portable
- Microwave Ovens
- Outlet Devices - Portable
- Plugs and Plug Sockets
- Polishers - Floor
- Projectors - including: Movie Projectors, Viewer
- Range Hoods
- Ranges - Fixed, including: Cooking Hobs, Ovens
- Ranges – Portable and cooking appliances
- Residual Current Devices (Safety Switches)
- Refrigerators and Freezers
- Room Heaters
- Liquid Heating Appliances, including: Bottle Warmers, Kettles, Deep Fryers, Shaving Mugs
- Sewing Machines
- Shavers (Electric Razors)
- Soldering Irons
- Switches - Wall
- Switches - Cordline/Inline
- Switching, Control and Conditioning Devices - Portable
- Swimming Pool and Spa Pumps and Equipment
- Television Receivers: CRT only not LCD or Plasma
- Therapeutic Lamps
- Toasters
- Transformers, Extra-Low Voltage, including: Battery Chargers, Battery Savers and Power Supply Units
- Vacuum Cleaners
- Washing Machines
- Water Heaters (Unvented Storage Type)
- Welders (Arc Welding Machines)

A definition of the above appliances is published in Appendix B of Australian/New Zealand Standard AS/NZS 4417.2: 2009, 'Marking of electrical and electronic products to indicate compliance with regulations, Part 2: Specific requirements for electrical safety regulatory applications'.

Appendix B Minimum energy performance standards

The energy efficiency standards apply to:

Types or classes of apparatus or installation (and applicable standard)	
1.	Domestic refrigerator. (AS/NZS 4474)
2.	Domestic freezer. (AS/NZS 4474)
3.	Domestic refrigerator/freezer. (AS/NZS 4474)
4.	Domestic storage water heater that is an unvented displacement storage system. (AS 1056 AND AS/NZS 4692)
5.	Three-phase air conditioner and heat pump system with a cooling capacity of up to 65 kW. (AS/NZS 3823)
6.	Three-phase electric motor rated from 0.72 kW to 185 kW (inclusive). (AS 1359.102)
7.	Air conditioner — refrigerative (single phase, vapour compression type). (AS/NZS 3823)
8.	Refrigerated display cabinet that — (a) is for use in the display or sale of foodstuffs; and (b) enables chilled and frozen foodstuffs placed in the cabinet to be maintained within certain temperature limits; and (c) has a remote or self-contained condensing unit. (AS 1731.14)
9.	Fluorescent lamp ballast comprising an electrical device of ferromagnetic or electronic construction for controlling the magnitude of current flowing through the discharge path of a fluorescent lamp with a rated power between 15 W and 70 W that — (a) is of the independent or built-in type intended for use with portable or fixed luminaries; or (b) is of the adaptor type allowing the insertion of a fluorescent lamp into the ballast by the user, and includes any capacitor incorporated in or supplied with the ballast, but does not include an integral type ballast forming a non-replaceable part of a fluorescent lamp. (AS/NZS 4783)
10.	Distribution transformer comprising an electrical device that — (a) has a power rating from 10 kVA to 2 500 kVA; and (b) is intended for use on systems operating with a voltage of up to 33 kV. (AS 2374)
11.	Linear fluorescent lamp comprising an electrical device that — (a) is for general illumination; and (b) is of the double-capped (FD or FDH) tubular type; and (c) is of a nominal length of 550 mm to 1,500 mm; and (d) has a nominal lamp wattage of 16 W or more; and (e) is for use in luminaries with lamp ballasts connected to a 230 V 50 Hz single phase or similar mains supply or for use only with high frequency electronic ballasts. (AS/NZS 4782)
12.	Air-cooled and water-cooled liquid-chilling package of cooling capacity 350 kW and above. (AS/NZS 4776)
13.	Digital television set-top-box. (AS/NZS 62087)

14.	External power supply unit, with mains supply input of 115 V or 230 V a.c. (nominal) and a single extra low voltage output up to 250 W d.c. or 250 VA a.c. (AS/NZS 4665)
15.	Television set. (AS/NZS 62087 parts 1 and 2)
16.	Incandescent lamp for general lighting services that — (a) is a tungsten filament lamp with a tungsten filament contained in a vacuum or inert gas filled glass envelope; or (b) is a tungsten halogen lamp with a tungsten filament contained in a halogen or halogen compound filled glass envelope, and has the attributes set out in section 1.1.2 to 1.1.9 of AS/NZS 4934.2 but does not include an appliance lamp, special purpose lamp or an automotive lamp. (AS/NZS 4934 parts 1 and 2)
17.	Self-ballasted compact fluorescent lamp for general lighting services as defined in section 3.13 of AS/NZS 4847.1. (AS/NZS 4847 parts 1 and 2)
18.	Transformer and electronic step-down converter for an extra low voltage lamp that — (a) receives an input from mains supply; and (b) has a single voltage ELV output (either a.c. or d.c.); and (c) is sold with, or intended to be used with, one or more ELV lamps that constitute the primary load. (AS/NZS 4879 parts 1 and 2)
19.	Close control air-conditioner used for applications where temperature and humidity are required to be monitored and maintained within narrow limits, such as for computer rooms, data processing units, telecommunication facilities and other industrial process areas. (AS/NZS 4965 parts 1 and 2)

Further information

More information is available on EnergySafety's website in the Consumer Safety and Efficient Appliances sections.

Contact details of other Australian State or Territory and New Zealand electrical regulators are available on EnergySafety's website in the links section or on the Electrical Regulatory Authorities Council (ERAC) website at www.erac.gov.au in the Related Links section.

Regulatory requirements for electromagnetic radiation (ie prevention of interference) from electrical equipment are available from the Australian Communications and Media Authority: www.acma.gov.au

National Relay Service: 13 36 77
Quality of service feedback line: 1800 30 40 59
Translating and Interpreting Service (TIS) 131 450

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