



NEW ZEALAND ENERGY STAR

VERSION 1.0

Criteria for solar water heating systems

Following are the product criteria for ENERGY STAR qualified solar water heating systems. A system must be manufactured or distributed by a New Zealand ENERGY STAR partner and meet all of the identified programme requirements to be registered with the New Zealand ENERGY STAR programme.

1) Definitions

- a) Packaged solar water heating system – a system with a fixed configuration, sold as a ready-to-install kit containing all system components
- b) Residential sized – a system with a maximum storage capacity of 700 litres.

2) Qualifying Products

Residential sized packaged solar water heating systems that:

- a) comply with AS/NZS 2712:2007
- b) can be performance rated by AS/NZS 4234:2008
- c) meet the criteria below.

3) Performance Criteria

A systems displaced energy divided by the annual purchased energy consumption of the reference water heater in New Zealand must be equal or greater than 70 per cent, when calculated using AS/NZS 4234:2008 for Zone 5.

ANNUAL PURCHASED ENERGY CONSUMPTION OF REFERENCE WATER HEATERS IN NEW ZEALAND		
Water Heater Type	Peak winter daily load, MJ/d (Zone 5)	Purchased energy used MJ/y



Electric large load	52	16 710
Electric medium load	39	13 050
Electric small load	25.6	9 280
Gas storage 3 star large load	52	25 730
Gas storage 3 star medium storage load	39	21 230
Gas storage 3 star small load	25.6	16 600

4) Test Criteria

Manufacturers must have their packaged solar water heating system performance modeled and provide corresponding report in accordance with AS/NZS 4234:2008.

Manufacturers must have their packaged solar water heating system tested and provide compliance certificate in accordance with AS/NZS 2712:2007.

The supplier must provide a copy of the compliance schedule and test report carried out by an Approved test facility with the packaged system registration form as specified below.

Approved Test Facility

An Approved Test Facility is a test facility that:

- Is covered by the ILAC (International Laboratory Accreditation Cooperation) agreement to test to the applicable standard; or
- EECA has stated its acceptance of test reports from the facility for the applicable standard (see EECA for details on how to become approved).

For a list of countries signed up to the International Laboratory Accreditation Cooperation agreement and their respective national testing organization please refer to the IANZ (International Accreditation New Zealand) website www.ianz.govt.nz.

5) Warranty

A product must have a 10 year warranty for the solar collector, six years for the storage tank and two years for controls.

6) Effective Date



The effective date of this criteria is 1 June 2010.

7) Valid Countries

This specification applies to products sold in New Zealand only.

8) Future Revisions

EECA reserves the right to revise the criteria should regulatory, technological and/or market changes affect its usefulness to consumers, industry or the environment.