

Appliance Product Application Guide

10 December 2018



An appropriate citation for this paper is:

Essential Services Commission 2018, *Appliance Product Application Guide*, 10 December

Copyright notice

© Essential Services Commission 2018



This work, *Appliance Product Application Guide*, is licensed under a Creative Commons Attribution 4.0 licence [creativecommons.org/licenses/by/4.0]. You are free to re-use the work under that licence, on the condition that you credit the Essential Services Commission as author, indicate if changes were made and comply with the other licence terms.

The licence does not apply to any brand logo, images or photographs within the publication.

Contents

Introduction	1
About this guide	1
Who should use this guide	1
Seeking assistance	2
Legal context for this guide	2
1. Product requirements	3
Product criteria and documentation	3
GEMS products under the program	3
2. Product performance and documentation requirements	5
2.1. Product category 22: High efficiency refrigerators and freezers	5
2.2. Product category 24: High efficiency televisions	6
2.3. Product category 25: Energy efficient clothes dryers	6
2.4. Product category 26: High efficiency pool pumps	7
2.5. Product category 31: High efficiency motors	7
2.6. Product category 32: Refrigerated display cabinet	8
2.7. Product category 33: Refrigeration/ventilation fan motor	8
Glossary	10

Introduction

This guide provides product applicants with guidance on how to apply for appliance products to be listed on our Register of Products, so that they are eligible to be installed and create Victorian energy efficiency certificates (VEECs) under the Victorian Energy Upgrades (VEU) program.

About this guide

This guide provides instructions on how to apply for an appliance product to be listed on our Register of Products.

The products covered by this guide are:

- High efficiency refrigerator and freezer (product category 22)
- High efficiency television (product category 24)
- Energy efficient clothes dryer (product category 25)
- High efficiency pool pump (product category 26)
- High efficiency motor (product category 31)
- Refrigerated display cabinet (product category 32)
- Refrigeration/ventilation fan motor (product category 33)

This guide is divided into two sections:

- Section 1 provides general information on product applications
- Section 2 provides further detail of the performance criteria and documentary evidence required for appliance products.

You should also read our Application Guide for Product Applicants, which provides additional information on:

- our Register of Products
- our product application and assessment process, including things to bear in mind throughout the process
- some product application functionality

Who should use this guide

You should use this guide if you are

- applying for appliance products to be listed on our Register of Products under the Victorian Energy Upgrades program
- interested in understanding the product application requirements for appliance products under the VEU program

You must hold a VEU account to apply for a product listing. Find out more about creating a VEU account at www.esc.vic.gov.au/become-veu-accredited

Seeking assistance

If you encounter difficulties with your application that cannot be answered using this guide contact us on (03) 9032 1310 or veu@esc.vic.gov.au

We appreciate the time and effort that businesses put into their applications and product officers will endeavour to work with you during the assessment process.

If you have submitted a product application, please use the designated 'notes' field in the online product assessment tool to communicate directly with the product officer responsible for assessing your application.

Legal context for this guide

We have prepared this guide as a general summary of relevant parts of:

- Victorian Energy Efficiency Target Act 2007 (the VEET Act)
- Victorian Energy Efficiency Target Regulations 2018 (the VEET Regulations)
- Victorian Energy Upgrades Specifications 2018 (the VEU specifications)
- Victorian Energy Efficiency Target Guidelines (the VEET guidelines)

View these documents at www.esc.vic.gov.au/veu-legislation

This guide should not be relied upon as substitute for legal advice and should be read in conjunction with the above source documents. In the event of inconsistency between this guide and the source documents, the content in the source documents apply.

1. Product requirements

1.1. Product criteria and documentation

Products must meet the specified requirements to be listed on the Register of Products and create energy efficiency certificates. We do not accept deviations from the listed standards.

You must review and familiarise yourself with the product performance and documentation requirements for each type of product before testing products and submitting product applications.

If you are unable to provide sufficient evidence that a product is capable of meeting the minimum criteria, the product will not be approved.

For most of the product categories listed on the following pages, you must submit an independent third-party verification of the product performance against established safety and performance standards, such as a test report from an accredited laboratory.

Consult the relevant sections of the VEET Regulations and VEU specifications when preparing documentary evidence for your application.

1.2. GEMS products under the program

Some products listed on the Australian Greenhouse and Energy Minimum Standards (GEMS) register can be used for VEU installation activities, even if not listed on our Register of Products.

However, for practical purposes a product must be listed in our Register of Products in order to create VEECs in our registry system. GEMS products include

- High efficiency refrigerator and freezer (product category 22)
- High efficiency television (product category 24)
- Energy efficient clothes dryer (product category 25)
- High efficiency motor (product category 31¹)
- Refrigerated display cabinet (product category 32)

View the GEMS Register at reg.energyrating.gov.au/comparator/product_types/

The register is maintained by the Australian GEMS Regulator, which is also responsible for administering the GEMS Act, and monitoring and enforcing compliance with the GEMS Act.

¹ Note that high efficiency (super-premium) motors (product category 31B) cannot be identified from the GEMS product register. A separate nomination process is available for suppliers to nominate these and provide supporting data for their inclusion in the Register of Products.

Adding GEMS-listed products to our Register of Products

We populate the register on a periodic basis (at least annually) with eligible products from the GEMS Register.

Usually, you will not need to apply to us to have a GEMS-listed product added to our Register of Products. However, in some cases the data available from the GEMS Register is incomplete and in such cases these products may not be added to our register until additional data is provided. Likewise, if a product is added – or an update made – to the GEMS Register, that change may not be reflected in the Register of Products immediately.

In order to add GEMS products to our Register of products:

- the brand and model of the product must comply with the relevant GEMS determination and be registered on the GEMS Register
- the product category must meet the product criteria specified in the VEET Regulations and the minimum energy efficiency requirements specified in the VEU specifications
- evidence of GEMS registration must be submitted in the form of a screenshot of the product listed in the GEMS Register demonstrating compliance with the product criteria (accessible via https://reg.energyrating.gov.au/comparator/product_types/).

Products that are removed from the GEMS Register cease to be eligible for VEU installation activities from the date of removal. If you are aware of your product being removed from the GEMS Register prior to its GEMS expiration date, please let us know immediately.

2. Product performance and documentation requirements

2.1. Product category 22: High efficiency refrigerators and freezers

Product category	Product criteria	Documentary evidence
High efficiency single door refrigerator (22A)	<ul style="list-style-type: none"> • A Group 1 refrigerator as defined by Greenhouse and Energy Minimum Standards (Household Refrigerating Appliances) Determination 2012 • Has a total volume as determined in accordance with AS/NZS AS/NZS 4474.1:2007 of not less than 100 litres and not more than 700 litres • Has a minimum star rating index of 2.5 as determined in accordance with AS/NZS 4474.2. 	A screenshot of the product listed in the GEMS Register demonstrating compliance with the product criteria
High efficiency two door refrigerator (22B)	<ul style="list-style-type: none"> • Group 4, 5B, 5S or 5T refrigerator as defined by Greenhouse and Energy Minimum Standards (Household Refrigerating Appliances) Determination 2012 (Cth) • Has a total volume as determined in accordance with AS/NZS AS/NZS 4474.1:2007 of not less than 100 litres and not more than 700 litres • Has a minimum star rating index of 3.5 as determined in accordance with AS/NZS 4474.2. 	
High efficiency chest freezer (22C)	<ul style="list-style-type: none"> • Group 6C product as defined Greenhouse and Energy Minimum Standards (Household Refrigerating Appliances) Determination 2012 (Cth) • Has a total volume as determined in accordance with AS/NZS 4474.1:2007 of not less than 100 litres and not more than 700 litres • Has a minimum star rating index of 3.5 as determined in accordance with AS/NZS 4474.2. 	

<p>High efficiency upright freezer (22D)</p>	<ul style="list-style-type: none"> • Group 6U or 7 product as defined Greenhouse and Energy Minimum Standards (Household Refrigerating Appliances) Determination 2012 (Cth) • Has a total volume as determined in accordance with AS/NZS 4474.1:2007 of not less than 100 litres and not more than 700 litres • Has a minimum star rating index of 3.0 as determined in accordance with AS/NZS 4474.2. 	
--	---	--

2.2. Product category 24: High efficiency televisions

Product criteria	Documentary evidence
<ul style="list-style-type: none"> • Has a minimum star rating of 7 • Has a comparative energy consumption not more than 300 kWh/y (listed on the energy rating label). • Measurement, testings and ratings must be in accordance with the Greenhouse and Energy Minimum Standards (Television) Determination 2013 (No.2). 	<p>A screenshot of the product listing on the GEMS Register demonstrating compliance with the product criteria.</p>

2.3. Product category 25: Energy efficient clothes dryers

Product criteria	Documentary evidence
<ul style="list-style-type: none"> • Stand-alone electric clothes dryer (not part of a combination washer/dryer) that is registered for energy labelling • Achieves a minimum 7 star in accordance with the Greenhouse and Energy Minimum Standards (Rotary Clothes Dryers) Determination 2015. 	<p>A screenshot of the product listing on the GEMS Register demonstrating compliance with the product criteria.</p>

2.4. Product category 26: High efficiency pool pumps

Product criteria	Documentary evidence
<ul style="list-style-type: none"> • A product for use within a domestic pool or spa that is a single phase, single speed, dual speed, multiple speed or variable speed pump unit • Has an input power of not less than 100W and not more than 2500W when tested in accordance with AS 5102.1 • Is part of the E3 Committee's voluntary energy rating labelling program for swimming pool pump-units (Rules for participation November 2010) or • Is registered for energy labelling and achieves a minimum 7 star rating when determined in accordance with AS 5102.2-2009. 	<p>Evidence of voluntary energy rating labelling program listing under voluntary energy rating labelling program</p> <p>(www.energyrating.gov.au).</p>

2.5. Product category 31: High efficiency motors

Product category	Product criteria	Documentary evidence
HE motor (31A)	<p>A three-phase cage induction motor that:</p> <ul style="list-style-type: none"> • has 2,4,6 or 8 poles • has a rated output of not less than 0.75 and not more than 185 kW in accordance with AS 60034.1 • is labelled as a high efficiency motor • is GEMS Registered in accordance with the Greenhouse and Energy Minimum Standards (Three Phase Cage Induction Motors) Determination 2012 unless otherwise stated 	A screenshot of the product listed in the GEMS Register demonstrating compliance with the product criteria
HE motor (Super Premium) (31B)	<p>A three-phase cage induction motor that:</p> <ul style="list-style-type: none"> • has 2, 4 or 6 poles • meets the requirements for an IE4 (super-premium) efficiency level motor proposed in Annex A of IEC/TS 60034-31 (when tested in accordance with IEC 60034-2-1) • has a minimum rated output between 0.75 and 185 kW as determined in accordance with AS 60034.1-2009 as published on 15 July 2009. 	Test report conducted to IEC 60034-2-1 by a laboratory accredited by NATA or equivalent body to perform that test.

2.6. Product category 32: Refrigerated display cabinet

Product criteria	Documentary evidence
Achieves the high efficiency level within the meaning of Greenhouse and Energy Minimum Standards (Refrigerated Display Cabinets) Determination 2012	A screenshot of the product listed in the GEMS Register demonstrating compliance with the product criteria

2.7. Product category 33: Refrigeration/ventilation fan motor

Product category	Product criteria	Documentary evidence	
Refrigeration fan motor for installation in a refrigerated display cabinet, commercial freezer or cool room (33A)	A fan motor installed in a fan in a refrigerated display cabinet, commercial freezer or cool room that is: <ul style="list-style-type: none"> an electronically commutated motor (being a permanent magnet motor with electronic commutation) and if an internal rotor motor, has a rated motor output of not more than 600 Watts if an external rotor motor, has a rated motor input of not more than 800 Watts 	Product specification sheet and/or manufacturer's declaration specifying: <ul style="list-style-type: none"> motor type (internal or external rotor motor) the input power (IP) (Watts) of the motor the output power (Watts) of internal rotor motors only refrigerator type. 	
	Electromagnetic compatibility (EMC) compliance certification.	ACMA ² supplier's declaration of conformity.	Or RCM ³ certificate to cover both requirements.
	Safety certification.	Safety certificate issued by a state government safety body or JAS-ANZ accredited approval provider.	

² ACMA = Australian Communications and Media Authority (www.acma.gov.au)

³ RCM = Regulatory compliance mark (see www.rcm.standards.org.au)

Product category	Product criteria	Documentary evidence	
Refrigeration fan motor for installation in a ducted fan or partition fan in an air-handling system (33B)	<p>A fan motor installed into a ducted fan or partition fan in an air-handling system as defined in ISO 13349:2010 that is:</p> <ul style="list-style-type: none"> • an electronically commutated motor (being a permanent magnet motor with electronic commutation) and • if an internal rotor motor, has a rated motor output of not more than 600 Watts • if an external rotor motor, has a rated motor input of not more than 800 Watts 	<p>Product specification sheet and/or manufacturer's declaration specifying:</p> <ul style="list-style-type: none"> • motor type (internal or external rotor motor) • the input power (IP) (Watts) of the motor • the output power (Watts) of internal rotor motors only • refrigerator type. 	
	Electromagnetic compatibility (EMC) compliance certification.	ACMA ⁴ supplier's declaration of conformity.	Or RCM ⁵ certificate to cover both requirements.
	Safety certification.	Safety certificate issued by a state government safety body or JAS-ANZ accredited approval provider.	

⁴ ACMA = Australian Communications and Media Authority (www.acma.gov.au)

⁵ RCM = Regulatory compliance mark (see www.rcm.standards.org.au)

Glossary

Term	Definition
Accredited body	In relation to a product, this means a body accredited under the Joint Accreditation System of Australia and New Zealand to give product certification or component certification of a product.
AP	An accredited person is a business that has been accredited by the commission to operate within the VEU program. An AP is entitled to create VEECs through the undertaking of energy efficient activities which are prescribed under the VEET Regulations.
Approved laboratory	Means a laboratory that is accredited by the National Association of Testing Authorities under a mutual recognition agreement.
Business premises	Under the VEU program, business premises are defined as: (i) the premises that is not registered as a residential premises (see definition below), and (ii) the premises not registered as a 'scheduled activity premises' unless it has been 'opted in' to the VEU program pursuant to Regulation 10AA of the VEET Regulations.
Equivalent body	A testing body recognised by NATA under a mutual recognition agreement.
ESV	Energy Safe Victoria
GEMS	Greenhouse and Energy Minimum Standards
GEMS Register	the register kept by the Greenhouse and Energy Minimum Standards Regulator under the GEMS Act and made available to the public at http://reg.energyrating.gov.au/comparator/product_types/ ;
MEPS	Minimum energy performance standard regulated by the GEMS Act;
NATA	National Association of Testing Authorities
RCM	Regulatory Compliance Mark
Residential premises	A building classified under part A3 of the Building Code of Australia as a class 1, 2, 3, or 4 building.
RFI	Request for further information
Total U-Value	The thermal transmittance (W/m^2K) of the composite element allowing for the effect of any airspace and associated surface resistances.
VEEC	Victorian energy efficiency certificate. Each VEEC represents one tonne of carbon dioxide equivalent (CO_2-e) abated by the prescribed activity.
VEET Act	Victorian Energy Efficiency Target Act 2007
VEET Regulations	The Victorian Energy Efficiency Target Regulations 2018
VEU	Victorian Energy Upgrades program
VEU specifications	Specifications published by the Secretary under regulation 35 of the VEET Regulations

Document version control

The RM reference for this document is: C/18/24091

Version	Amendments made	Date published
1.0	First release	10 December 2018