

Appliance Product Application Guide

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Introduction

About this guide

This guide provides product applicants (whether they be accredited persons (APs), product manufacturers or other stakeholders) with instructions and our documentation requirements for applying for a lighting product to be registered on our Register of Products.

The product categories which are covered by this guide are:-

- Product category 22: High efficiency refrigerator and freezer
- Product category 24: High efficiency television
- Product category 25: Energy efficient clothes dryer
- Product category 26: High efficiency pool pump
- Product category 30: In-home display unit
- Product category 31: High efficiency motor
- Product category 32: Refrigerated display cabinet
- Product category 33: Refrigeration/ventilation fan motor

This guide is divided into two sections:

- Section 1 provides information on GEMS products under the program
- Section 2 provides detail of the documentary evidence required for above products.

This guide must be read in conjunction with our Application Guide for Product Applicants which provides product applicants with 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

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

You will need to hold a VEU account in order to apply for listing of products under the program. A link to create a new VEU account can be found at www.esc.vic.gov.au/veu-become-accredited

Register of Products

We are required by the VEET Regulations to maintain a register of energy saving products that, if listed in the register, products may be installed under a prescribed activity to enable the creation of Victorian energy efficiency certificates (VEECs).

To be listed on our Register of Products, a product must be capable of performing to the minimum criteria specified in the relevant activity of the VEET Regulations.

The Register of Products is published at www.veu-registry.vic.gov.au/register-products. The register provides businesses accredited to participate in the Victorian Energy Upgrades (VEU) program with a list of products that may be installed for each relevant prescribed activity. The register includes functionality for users to refine their search based on product brand, model, performance specifications, application status and effective date. The register also allows users to export the register for external reference.

APs are not required to submit applications to install products that are already listed on the Register of Products.

APs should note that we must remove a product from the Register of Products if we are satisfied the product does not meet the product criteria listed in the VEET Regulations and/or the minimum energy efficiency requirements in the VEU specifications.

We may remove a product if Energy Safe Victoria gives us written notice that a product is unsafe. We may remove or modify a product listing in the register further to a request from stakeholders – see Section 3.2 of the Application Guide for Product Applicants.

Upon its removal from the register, installations involving that product will not be eligible for the creation of VEECs.

All users of the Register of Products should familiarise yourselves with the terms and conditions of listing a product on the register and the VEU Registry disclaimer (see <http://www.veu-registry.vic.gov.au/>).

Seeking assistance

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 encounter difficulties

preparing your application, the commission website should be your starting point. If your question remains unanswered, or if you encounter technical difficulties with the portal, contact VEU support on (03) 9032 1310 or VEU@esc.vic.gov.au

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:-

1. Victorian Energy Efficiency Target Act 2007 (the Act)
2. Victorian Energy Efficiency Target Regulations 2018 (the VEET Regulations)
3. Victorian Energy Upgrades Specifications 2018 (the VEU specifications)
4. Victorian Energy Efficiency Target Guidelines (the guidelines)

All above legislative documents are available 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. GEMS products under the program

The Greenhouse and Energy Minimum Standards (GEMS) Regulator is based in the Commonwealth Department of the Environment and Energy and is responsible for administering the GEMS Act, maintaining the GEMS Register, and monitoring and enforcing compliance with the GEMS Act. The specific requirements for each product regulated under the GEMS Act, including Minimum Energy Performance Standards (MEPS) and Energy Rating Labelling (ERL) requirements, are set out in a further legislative instrument specific to that product type called a GEMS Determination.

Products regulated for energy efficiency in Australia and New Zealand must be registered and meet a number of legal requirements before they can be sold or offered for supply.

1.1. GEMS products eligible under the VEU program without commission approval

For some activities with products which are listed on the GEMS Register (including the product categories listed below), the VEET Regulations and VEU Specifications provide that the products only need to be listed on the GEMS Register at the time of installation and creation of VEECs:

- Product category 22: High efficiency refrigerator and freezer
- Product category 24: High efficiency television
- Product category 25: Energy efficient clothes dryer
- Product category 26: High efficiency pool pump
- Product category 30: In-home display unit
- Product category 31: High efficiency motor
- Product category 32: Refrigerated display cabinet
- Product category 33: Refrigeration/ventilation fan motor

However, from an IT systems perspective, all products need to be recorded in our Register of Products in order to create VEECs in our registry system. We will be populating our register on a periodic basis (at least annually) with eligible products from the GEMS Register. In most circumstances, you should not need to apply to us to have a product listed on our register for these activities. However, if an update has been made to the GEMS Register which has yet to be reflected in our register, you will be able to apply to us to have this product listed on our register (with minimal supporting documentation).

1.2. Adding a GEMS product to the Register of products

If a product which is listed in the GEMS Register is not listed on our register, you will be able to apply to us, using the online product application tool, to have this product listed on our register. Minimal supporting documentation is required to be provided as part of your application. The product will need to meet the minimum eligibility

To add GEMS products to our Register of products, the following requirements must be met:

- 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/)

If you are aware of your product being removed from the GEMS Register prior to its GEMS expiration date, please let the commission know immediately.

2. Product performance and documentation requirements

2.1. How to use the product criteria and evidentiary tables

This section details the program's minimum product performance requirements and eligibility criteria and the evidentiary requirements for each product category that must be submitted to us in support of your application to have a product listed on the Register of products.

Each table corresponds to the relevant schedule to which the product belongs and lists the product criteria and the documentary evidence that must be submitted to demonstrate compliance.

For most of the product categories listed below, you will be required to 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.

The capacity of a product to perform to specified standards is a requirement of listing on the Register of products and the valid creation of energy efficiency certificates. We do not accept deviations from the listed standards. If you are unable to provide sufficient evidence that a product is capable of meeting the minimum criteria, the product will not be approved.

2.2. Product category 22: High efficiency refrigerators and freezers

Product category number	Product category	Product Criteria	Documentary evidence
22A	High efficiency single door refrigerator	<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. 	<ul style="list-style-type: none"> • A screenshot of the product listed in the GEMS Register demonstrating compliance with the product criteria
22B	High efficiency two door refrigerator	<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 	
22C	High efficiency chest freezer	<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 	

		<ul style="list-style-type: none"> Has a minimum star rating index of 3.5 as determined in accordance with AS/NZS 4474.2.
22D	High efficiency upright freezer	<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

2.3. Product category 24: High efficiency televisions

Product category number	Product category	Product Criteria	Documentary Evidence
24A	High efficiency television	<ul style="list-style-type: none"> Has a minimum star rating of 7 Has a comparative energy consumption on the energy rating label of not more than 300 kWh/y. Measurement, testings and ratings must be in accordance with the Greenhouse and Energy Minimum Standards (Television) Determination 2013 (No.2) 	<ul style="list-style-type: none"> A screenshot of the product listing on the GEMS Register demonstrating compliance with the product criteria.

2.4. Product category 25: Energy efficient clothes dryers

Product category number	Product category	Product Criteria	Documentary Evidence
25A	Energy efficient clothes dryer	<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 	<ul style="list-style-type: none"> A screenshot of the product listing on the GEMS Register demonstrating compliance with the product criteria

2.5. Product category 26: High efficiency pool pumps

Product category number	Product category	Product Criteria	Documentary Evidence
26	High efficiency pool pump	<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 else registered for energy labelling under AS 5102.2 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>

2.6. Product category 30: In-home display unit

Product category number	Product category	Product Criteria	Documentary Evidence
3A	ZigBee certified IHD	Complies with the ZigBee smart energy profile specification published on 1 Dec 2008 and the ZigBee smart energy profile specification version 1.1 published 23 Mar 2011.	ZigBee smart energy profile specification version 1.1 certification.
		<p>An in home display unit that:</p> <ul style="list-style-type: none"> • when installed in relation to an AMI, provides information directly to the consumer on the total electricity consumption of the residential premises • determines electricity consumption information from the sensing apparatus every 30 seconds or less • is able to store electricity energy consumption information from the previous 45 days • is able to display information to the consumer, in a numerical format and non-numerical format, that allows the consumer to easily distinguish between low and high consumption including: <ul style="list-style-type: none"> – electricity energy consumption information from the previous 45 days in intervals of each hour and each day – the average total household electrical power consumption (W) for the displayed period, updated every 30 seconds or less – the total household electricity energy consumption (kWh) for the displayed period and the cost of that consumption, updated every 30 seconds or less • is able to display the tariff (cost per unit of energy consumed) and the total cost of electricity consumed for the period displayed <p>is able to permanently erase all consumption and tariff information held by the IHD unit.</p>	Test report with relevant attachments by a NATA accredited laboratory or equivalent body demonstrating compliance with the product criteria.
		<ul style="list-style-type: none"> • A unit that is compatible with each distribution network service provider (DNSP) where the IHD is installed. 	DNSP test report.
Power source			

		<ul style="list-style-type: none"> • If any component is battery powered, that component uses a battery with a manufacturer's rated lifetime of at least 5 years or 	Manufacturer's declaration.
		<ul style="list-style-type: none"> • If mains powered, has an average electricity power consumption of 0.6 watts or less 	Test report (see above).
		<ul style="list-style-type: none"> • If mains powered, external power supply (if any) is MEPS registered. 	GEMS registration screen shot (www.energyrating.gov.au).
30B	Non-ZigBee certified IHD	<p>An in-home display unit that:</p> <ul style="list-style-type: none"> • when installed in relation to any sensing apparatus, provides information directly to the consumer on the total electricity consumption of the residential premises • determines electricity consumption information from the sensing apparatus every 30 seconds or less • is able to store electricity energy consumption information from the previous 45 days • is able to display information to the consumer, in a numerical format and non-numerical format, that allows the consumer to easily distinguish between low and high consumption including: <ul style="list-style-type: none"> – the electricity energy consumption information from the previous 45 days in intervals of each hour and each day – the average total household electrical power consumption (W) for the displayed period, updated every 30 seconds or less – the total household electricity energy consumption (kWh) for the displayed period and the cost of that consumption, updated every 30 seconds or less • is able to display the tariff (cost per unit of energy consumed) and the total cost of electricity consumed for the period displayed • is able to permanently erase all consumption and tariff information held by the IHD unit • provides electricity energy consumption information 	Test report with relevant attachments by a NATA accredited laboratory or equivalent body demonstrating compliance with the product criteria.

		that is accurate to within 5% of actual consumption.	
		<ul style="list-style-type: none"> • A unit that uses for its communications with the sensing apparatus and any display device, an encrypted communication protocol approved by us. 	Manufacturer's description and declaration
		Power source	
		<ul style="list-style-type: none"> • If any component is battery powered, that component uses a battery with a manufacturer's rated lifetime of at least 5 years 	Manufacturer's declaration.
		<ul style="list-style-type: none"> • If mains powered, has an average electricity power consumption of 0.6 watts or less 	Test report (see above).
		<ul style="list-style-type: none"> • If mains powered, external power supply (if any) is MEPS registered. 	GEMS registration screen shot (www.energyrating.gov.au).

2.7. Product category 31: High efficiency motors

Product category number	Product category	Product Criteria	Documentary Evidence
31A	HE motor	<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 	<ul style="list-style-type: none"> • A screenshot of the product listed in the GEMS Register demonstrating compliance with the product criteria
31B	HE motor (Super Premium)	<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. 	<ul style="list-style-type: none"> • Test report conducted to IEC 60034-2-1 by a laboratory accredited by NATA or equivalent body to perform that test.

2.8. Product category 32: Refrigerated display cabinet

Product category number	Product category	Product Criteria	Documentary Evidence
32	Refrigerated display cabinet	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

2.9. Product category 33: Refrigeration/ventilation fan motor

Product category Number	Product category	Product Criteria	Documentary Evidence	
33A	Refrigeration fan motor for installation in a refrigerated display cabinet, commercial freezer or cool room	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 ¹ supplier's declaration of conformity.	Or RCM ² certificate to cover both requirements.
		Safety certification.	Safety certificate issued by a state government safety body or JAS-ANZ accredited approval provider.	

¹ ACMA = Australian Communications and Media Authority (www.acma.gov.au)

² RCM = Regulatory compliance mark (see www.rcm.standards.org.au)

Product category Number	Product category	Product Criteria	Documentary Evidence	
33B	Refrigeration fan motor for installation in a ducted fan or partition fan in an air-handling system	A fan motor installed into a ducted fan or partition fan in an air-handling system as defined in ISO 13349:2010 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 ³ supplier's declaration of conformity.	Or RCM ⁴ certificate to cover both requirements.
		Safety certification.	Safety certificate issued by a state government safety body or JAS-ANZ accredited approval provider.	

³ ACMA = Australian Communications and Media Authority (www.acma.gov.au)

⁴ RCM = Regulatory compliance mark (see www.rcm.standards.org.au)

Glossary

Term	Definition
(the) Act	Victorian Energy Efficiency Target Act 2007
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 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

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