

Victorian Energy Upgrades Performance Report 2022



Acknowledgement

We acknowledge the Traditional Owners of the lands and waterways on which we work and live.

We acknowledge all Aboriginal and Torres Strait Islander communities, and pay our respects to Elders past and present.

As the First Peoples of this land, belonging to the world's oldest living cultures, we recognise and value their knowledge, and ongoing role in shaping and enriching the story of Victoria.

Artwork: Simone Thomson

From *Dill-ba-din Balluk Biik* – Protect Community and Country



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The VEU Performance Report is prepared pursuant to section 7(3) of the *Victorian Energy Efficiency Target Act 2007* (VEET Act) and constitutes publication of the matters at section 67 of the VEET Act.

Important notice

The information in this publication is to meet statutory reporting requirements and provide general information on the VEU program only. It does not constitute legal or other professional advice and should not be relied on as a statement of the law. While the commission has made every reasonable effort to provide current and accurate information, you should obtain professional advice if you have any specific concern, before relying on the accuracy, currency or completeness of this information.

The Victorian Energy Upgrades program registered over 7.8 million certificates in 2022, representing over 7.8 million tonnes of greenhouse gas emissions saved.

Over 818,000 energy efficient upgrades were delivered across more than 535,000 Victorian households and businesses during the year.

This 14th annual Victorian Energy Upgrades Performance Report outlines the work undertaken to deliver program outcomes for Victorian consumers and program participants in 2022, and to prepare for the program's future.



From the Chairperson



I am pleased to present the Victorian Energy Upgrades Performance Report for 2022.

Supporting Victorians to reduce their energy costs as we work towards net zero by 2045

2022 was a consequential year for energy. Volatile energy markets due to the war in Ukraine and unplanned generator outages closer to home has led to higher energy bills for consumers. With cost-of-living pressures adding up, consumers are looking for trusted, effective and sustainable solutions to manage their energy usage and energy bills.

The Victorian Energy Upgrades program has supported more than two million households and 150,000 businesses to reduce their energy usage and save on their energy bills since 2009. This is expected to lead to more than 78.5 million tonnes in greenhouse gas emissions savings and hundreds of dollars off participating consumers' energy bills.

As we enter the 15th year of the program, consumer demand for the program is growing. In 2022, we saw a 25 per cent increase in program upgrades compared to 2021, with more than 535,000 homes and businesses accessing more than 818,000 upgrades. These consumers can expect an estimated average annual savings of \$100 and \$2,117 on their household and business bills respectively.

The program also reduces emissions and lowers energy prices for all Victorians. Energy savings from the program are expected to reduce Victorian electricity consumption by seven per cent in 2025 and avoid \$3.8 billion in energy system costs.¹

Strengthening the Victorian Energy Upgrades program for consumers

New laws and program requirements were introduced in 2022 to strengthen the program. These translate to more energy efficiency savings, increased emissions reductions, higher standards for industry, more consumer protections, and improved consumer experiences and outcomes. The reforms also include stronger compliance and enforcement powers for the commission, including introducing penalties for contraventions of certain rules for all businesses providing services under the program.

The reforms come at a critical time for the program. In recent years, it has incorporated new technologies and offered more complex products and services to meet the needs of a wider range of consumers, such as hospitals, supermarkets and schools, and to help achieve higher emissions reduction targets. The reforms to strengthen the program reflect its growing value to consumers and critical contribution to Victoria's climate action plan.

As the program administrator and regulator, the commission's responsibility is to maintain the integrity of the program so that Victorian consumers realise the energy efficiency benefits it has been designed to deliver. This means making sure businesses carrying out energy upgrade activities under the program follow the rules, meet the standards, and comply with their obligations to consumers. The report outlines our focus on promoting industry compliance with the rules and the strong enforcement actions we have taken to address behaviours, conduct and outcomes that harm the program. We are committed to upholding these rules and implementing program reforms to build a stronger program for Victorian consumers.

On reflecting on the program outcomes of the last 12 months, and the value of the program to Victorians, I am confident the sector will approach this next phase of the program with care, commitment and focus. For our part, the commission will continue our work to facilitate positive outcomes for consumers through the program as we embark on this important next chapter.

Kate Symons

Chairperson
Essential Services Commission

¹ Finding noted by the Department of Energy, Environment and Climate Action at: <https://www.energy.vic.gov.au/for-households/victorian-energy-upgrades-for-households/about-the-veu-program>

Key outcomes under the program:

Greenhouse gas emissions savings for Victoria

Over **7.8 million** tonnes of expected greenhouse gas emissions (CO₂e) savings by the program in 2022



31% savings were delivered in regional Victoria

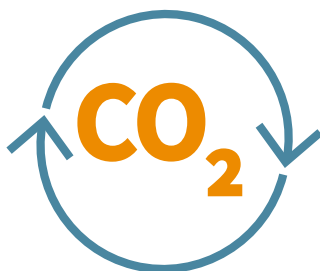
69% savings were delivered in metro Melbourne



32% savings were delivered by Victorian households



68% savings were delivered by Victorian businesses



Around **78.5 million** tonnes of total expected greenhouse gas emissions (CO₂e) savings under the program

Key outcomes under the program: Energy and cost savings for Victorian consumers



752,933

upgrades were delivered
to Victorian households



65,202

upgrades were delivered
to Victorian businesses

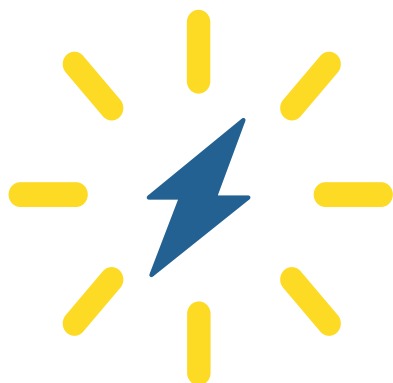
2022 upgrades expected to deliver an average of:



9 MWh of energy savings and **\$100**
annual cost savings for participating households

134 MWh of energy savings and **\$2,117**
annual cost savings for participating businesses

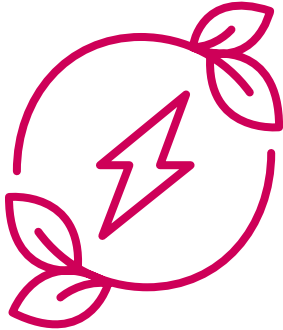
Over **486,000** households and more than **48,000** businesses
benefitted from the program in 2022



10.7 GWh
of energy savings expected to
be generated from 2022 upgrades

Key outcomes under the program:

Outcomes for program participants



1,672

new energy efficient products were included on the register, bringing total to 19,998

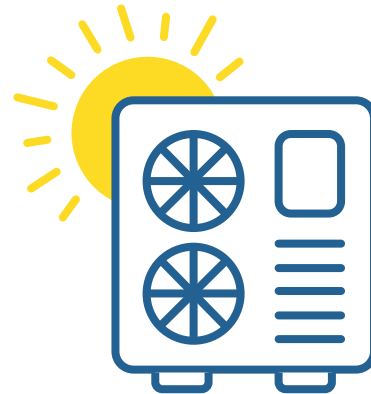


25 new accredited persons were approved to create certificates

90 accredited persons created certificates in 2022



142 new account holders (businesses registered to own, trade and surrender certificates)



The commercial and industrial heat pump water heater activity was introduced into the program

48 project-based activities (PBA) impact reports were approved – a 65% increase on 2021



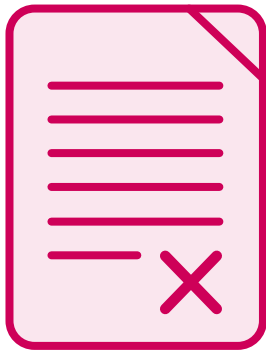
7,890,572 certificates were registered in the program

Key outcomes under the program:

Compliance and complaints



1,645 complaints received = **31** complaints per 10,000 premises upgraded



Our compliance and enforcement activities resulted in the surrender of 13,020 certificates in 2022



We undertook **1,020** upgrade audits (phone, desktop and field audits) and 20 investigations in 2022

We suspended two accredited persons and revoked accreditation of one accredited person



Over **\$1.5 million** paid by energy retailers in shortfall penalties issued in 2022

About this report

This report details the Essential Services Commission's regulatory and administrative actions under the *Victorian Energy Efficiency Target (VEET) Act 2007* (the VEET Act) for the 2022 year.

The VEET Act established the creation of the VEET scheme, known as the Victorian Energy Upgrades (VEU) program and charged the commission with its implementation from 1 January 2009.

This report is published to meet our statutory reporting requirements for the 2022 year (1 January to 31 December 2022) in accordance with section 7(3) of the VEET Act. Table 1 shows the reporting information required under section 67 of the VEET Act.

Table 1: Information required to be published for the 2022 year

Information to be published	Amount
Certificates created in 2022 (1 January to 31 December)	8,446,620
Certificates surrendered by accredited persons in 2022 (1 January to 31 December)	13,020
Certificates surrendered by relevant entities for the 2022 compliance year	6,603,730
Relevant entities that had an energy efficiency certificate shortfall	4
Total relevant entities' energy efficiency certificate shortfalls:	21,920
• Elysian Energy Pty Ltd	8,122
• Mojo Power East Pty Ltd	2,733
• QEnergy Limited	10,395
• Weston Energy Pty Ltd	670

This report provides information on key aspects of the program for the 2022 year, including our assessment of:

- applications for new accounts and accreditation applications
- the creation of Victorian energy efficiency certificates (VEECs)
- project-based activities and product submissions.

The report also outlines:

- our compliance activities, including enforcement outcomes against accredited persons and energy retailers²
- other work activities and projects we delivered to maintain the integrity of the program and to prepare for its future.

²Energy retailers who meet specific threshold requirements under the VEET Act have an obligation under the VEET Act to surrender certificates. They are called "relevant entities" under the VEET Act.

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About the program

The Victorian Energy Upgrades program is the largest energy efficiency program in Australia.

The program is a key mechanism for reducing greenhouse gas emissions in Victoria

The Victorian Energy Upgrades program is a major part of the Victorian Government's objective in achieving greenhouse gas emission reduction outcomes. Targets set under the program aim to reduce Victoria's energy demand by seven per cent by 2025.³

The program helps reduce Victoria's greenhouse gas emissions by providing Victorians with access to discounted energy-saving products and activities via accredited persons. When these businesses undertake an eligible energy upgrade, they create Victorian energy efficiency certificates (VEECs) under the program. Each certificate represents one tonne of carbon dioxide equivalent of greenhouse gas saved.

Energy retailers are required to acquire and surrender Victorian energy efficiency certificates to meet the annual targets set in Victorian legislation. The target set for 2022 was 6.7 million certificates, which was met and exceeded under the program.

The program is expected to deliver around 78.5 million tonnes of greenhouse gas emissions savings since it began in 2009. This is equivalent to taking over 23 million cars off the road for a year.

The commission's role is to regulate the creation, registration and surrender of certificates under the Victorian Energy Upgrades program in accordance with the program's legislative framework.

See [Appendix A](#) for information on the program's legislative framework, our program responsibilities and our compliance and enforcement framework.

Delivering savings for participating consumers

Since the program started in 2009, over 2.1 million households and over 155,000 business premises have benefited from energy upgrades; delivering energy and cost savings.

Over 486,000 Victorian households and more than 48,000 business premises benefitted from energy upgrades in 2022.⁴ These upgrades are expected to generate approximately 9.16 GWh of electricity savings and 5.54 million GJ of gas savings over the lifetime of the upgrades. This represents 10.7 GWh of energy savings.

- Households that undertook an upgrade in 2022 are expected to save an average of \$100 on their annual energy bills and 9 MWh over the lifetime of the upgrades.⁵
- Participating businesses are expected to save an average of \$2,117 on their annual energy bills and 134 MWh of energy over the lifetime of the upgrades.⁶

³ Department of Environment, Land, Water and Planning, Victoria's Climate Change Strategy, May 2021.

⁴ Based on upgrade activities that had their certificates registered in 2022.

⁵ Assuming an electricity price of \$0.22 per kWh and gas price of \$0.025 per MJ, and 15 years lifetime for the upgrades.

⁶ Assuming an electricity price of \$0.24 per kWh and gas price of \$0.020 per MJ, and 15 years lifetime for the upgrades.



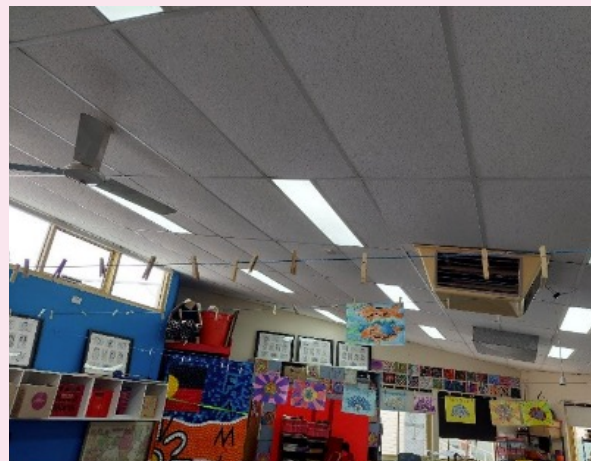
Benefits for homes and businesses in Oak Park

Oak Park was described as the most typical suburb in Victoria in 2013.⁷ The suburb is 12 kilometres north-west of Melbourne with a population of around 36,000 in 2021 and just over 15,000 dwellings. Oak Park was closest to the national average when looking at measures such as age, household size, income, residents born overseas and disadvantage.

How does the program impact Victoria's most typical suburb?

Oak Park residents and businesses have accessed incentives under the program to undertake over 6,200 energy efficiency upgrades from 2009. These upgrades have delivered just under 50,000 tonnes of greenhouse gas emissions savings. In 2022, there were 558 upgrades conducted in Oak Park across 366 households, and 22 upgrades undertaken across 16 business premises.

The most common upgrades undertaken by households included the installation of in-home displays, weather sealing, lighting activities and shower roses, with many homes taking advantage of multiple activities. Oak Park Primary School was one of the many premises to benefit from the VEU program. The school replaced 256 inefficient fluorescent tubes, compact fluorescent lamps, and metal halide lamps across the school with energy efficient LED lamps in 2022.



“The VEU program has enabled the school to upgrade our lighting at virtually no cost and has the potential to save us thousands of dollars into the future. We found it easy to arrange the upgrades with the accredited provider and the installers were great. They came on the weekend to minimise disturbance to classes and were quick to respond and install a replacement when lighting needed to be fixed. The new lights now use around one quarter of the previous power consumption and provide a kinder brightness to classrooms. Oak Park Primary has a strong culture of trying to be sustainable wherever possible, and schools reducing their baseline power consumption is important for reducing the load on the grid. I would encourage other schools to participate in undertaking such energy efficiency upgrades through the program.”

Principal Michael Gill,
Oak Park Primary School

⁷<https://blog.id.com.au/2013/population/demographic-trends/what-is-australias-most-typical-suburb/>

Delivering benefits for all Victorians

The efficient use of energy by Victorian consumers can:

- reduce wholesale energy prices by reducing the need for investment in new generation or augmenting the energy grid
- improve energy security by reducing energy demand at peak times.

Residential consumers are expected to save on their energy bills across the 2021–2030 period even if they do not participate in the program.⁸

Since 2009, the program has helped introduce approximately 20,000 energy-saving products to the market, establishing commercial opportunities for more than 250 new businesses and approximately 7,150 trade professionals.

The program also encourages investment, employment and innovation in industries that supply these products and services.

⁸ Department of Environment, Land, Water and Planning, Regulatory Impact Statement (Victorian Energy Efficiency Target Amendment (Prescribed Customers and Targets) Regulations 2020, 2019, p 8.



**Program performance
in 2022**

The program has consistently delivered on its greenhouse gas emissions reduction objective by delivering enough registered certificates every year to meet its annual greenhouse emissions targets.

Victorian Energy Upgrades program targets met

Over 8.4 million certificates were created by accredited persons in 2022. We registered over 7.89 million certificates, exceeding the number of certificates required to meet the program’s 2022 target of 6.7 million certificates. This is a significant increase from certificate creations and registrations in 2021, when just under 7.9 million certificates were created and over 7.5 million were registered.

Table 2 shows the number of certificates created, registered, withdrawn, and surrendered by accredited persons, both in 2022 and since the start of the program in 2009.

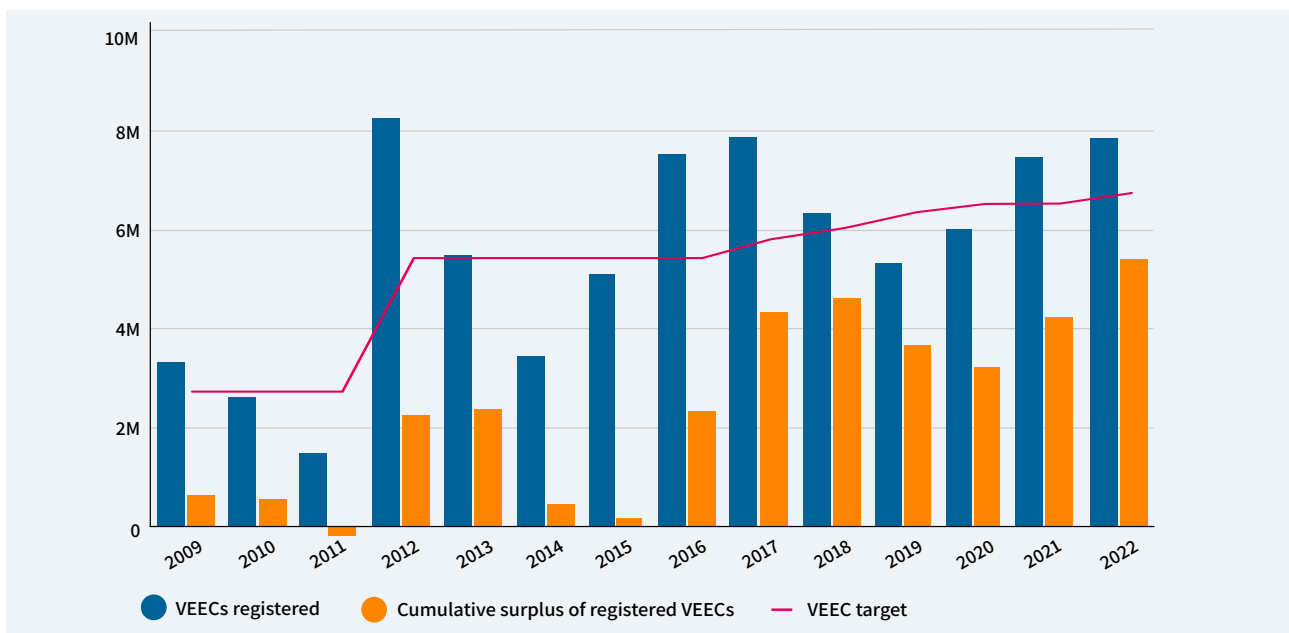
Table 2: Certificates created, registered, withdrawn and surrendered

Certificate transactions	2022	Total (2009 – 2022)
Certificates created	8,446,620	85,198,902
Certificates withdrawn by accredited persons ⁹	335,718	5,477,826
Certificates registered	7,890,572	78,542,056
Certificates refused registration	-	117,355
Certificates surrendered by accredited persons	13,020	414,832

Volume of certificates available to meet program targets in future years

The program’s certificate surplus rose by 28 per cent to over 5.44 million certificates at the end of 2022. This is an increase from the previous year’s certificate surplus of around 4.25 million. The volume of certificates available will help meet future program targets.

Figure 1: Certificate target, certificates registered, and surplus of certificates registered (in millions) – 2009 to 2022



⁹ Withdrawn certificates may be resubmitted by an accredited person and registered at a later date when the organisation is able to provide us with sufficient evidence to satisfy our pre-registration checks.

Continued growth in account creation and participation by accredited persons

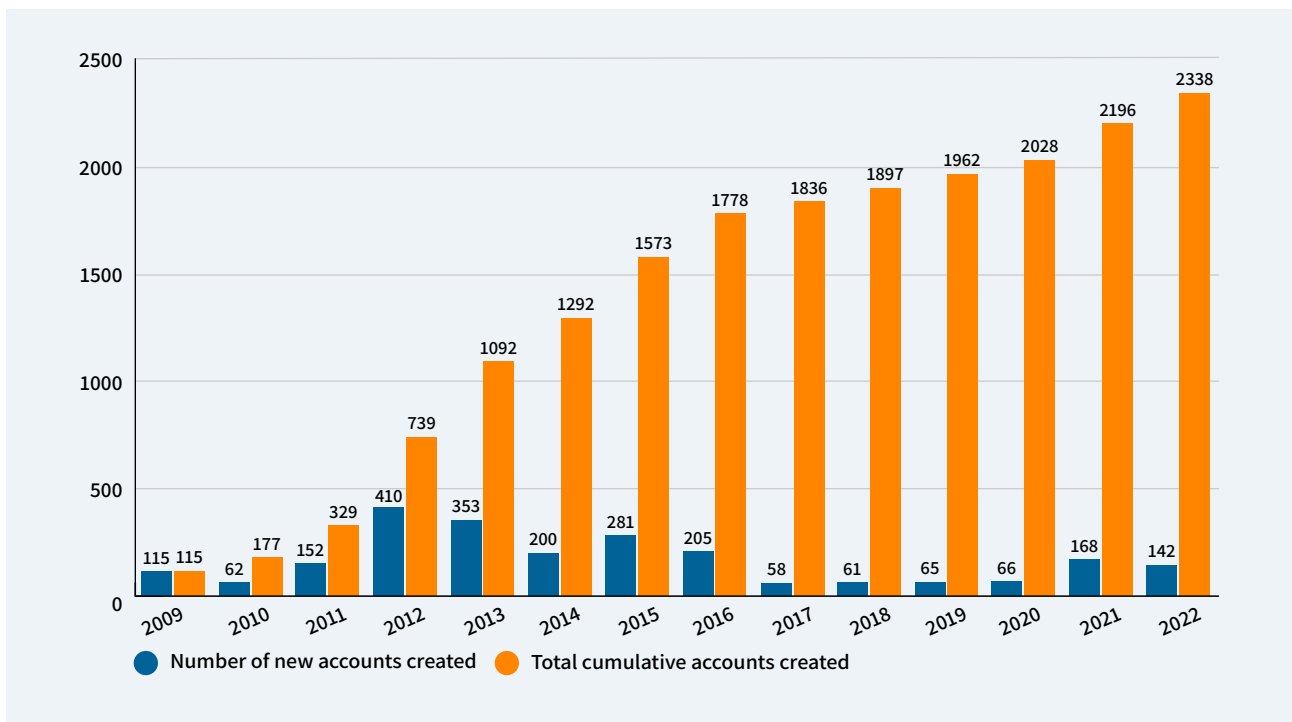
Under the Victorian Energy Upgrades program, certificates can only be created by accredited persons. However, program account holders can own, trade and surrender certificates.

An account holder may be:

- an energy retailer
- an accredited person
- a certificate trader
- any other individual or organisation registered as an account holder.

In 2022, 142 new accounts were created, bringing the overall total to 2,338.

Figure 2: Cumulative number of VEU accounts by year – 2009 to 2022



Twenty-five new accredited persons were approved in 2022 to be able to create certificates under the program. Ninety accredited persons were actively creating certificates over 2022, continuing another increasing trend since 2019. Similarly, the number of activity types undertaken by accredited persons under the program has risen from 31 activities in 2021 to 35 activities in 2022.

Figure 3: Number of accredited persons creating certificates and the number of activity types that contributed to those certificates

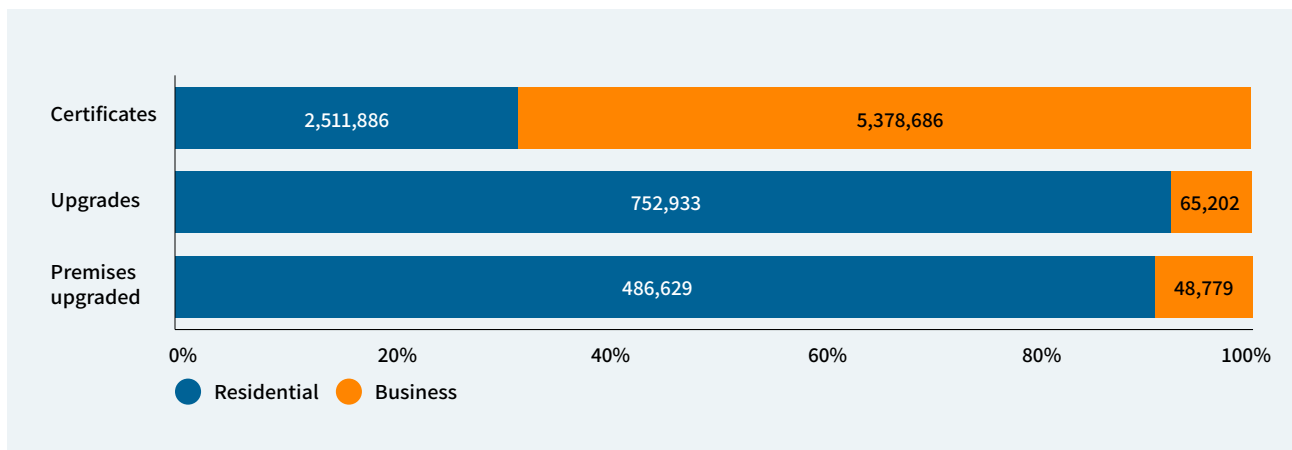


Increase in the number of upgrades, particularly in business premises

The program delivered significantly more upgrades in 2022 compared to 2021. Victorian energy efficiency certificates were registered from around 818,000 energy efficient upgrades, undertaken across over 486,000 residential premises and more than 48,000 businesses premises throughout Victoria.

In 2022, 752,993 upgrades, or 92 per cent of the total upgrades for the year, were undertaken in residential premises. However, residential upgrades represented only 32 per cent of the total certificates registered for the year. Upgrades undertaken in business premises (65,202) delivered the remaining 68 per cent of certificates registered, even though they account for only 8 per cent of the upgrades undertaken in the year. This is because larger amounts of certificates are generated on average for upgrades undertaken in business premises compared to residential premises.

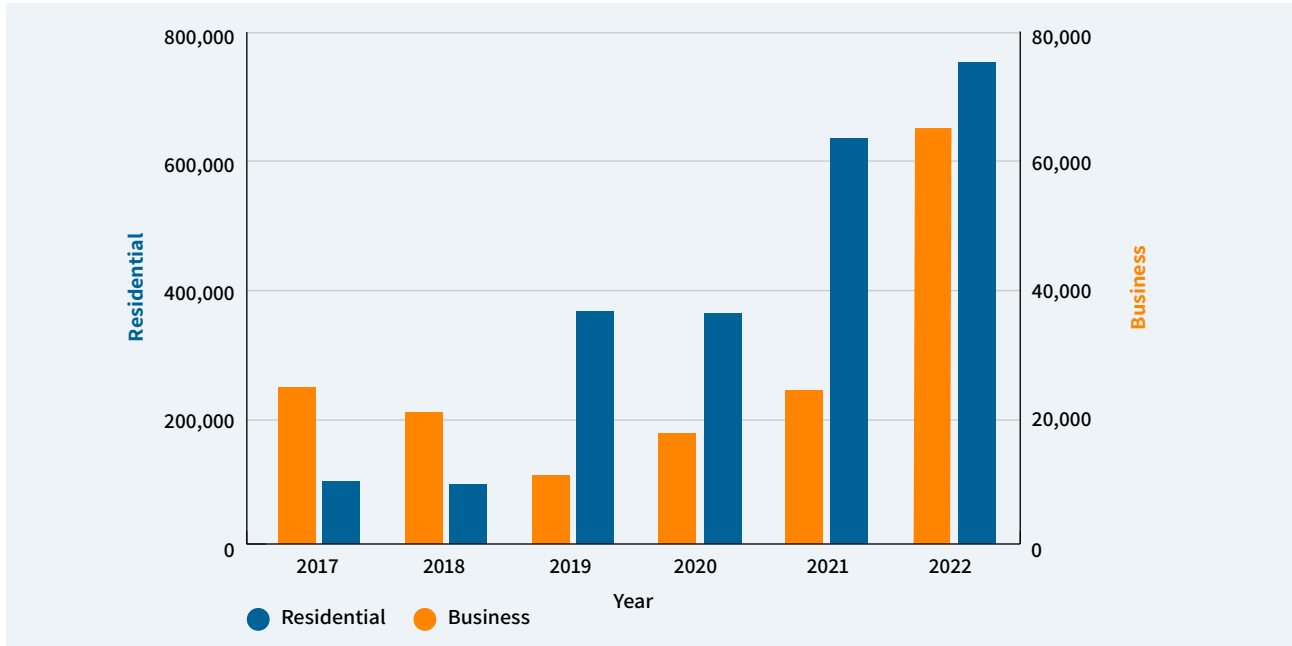
Figure 4: Number of premises upgraded, upgrades undertaken, and certificates registered by types of premises in 2022



The total number of upgrades delivered in 2022 is approximately 25 per cent more than the number delivered in 2021 when around 657,000 upgrades were delivered. This represents the highest number of annual upgrades undertaken in the program since 2012.

The increase was most significant for upgrades to businesses, with more than 65,000 upgrades conducted in business premises in 2022 compared to the 24,000 upgrades in 2021. This represents the highest number of annual upgrades to business premises across the program’s history.

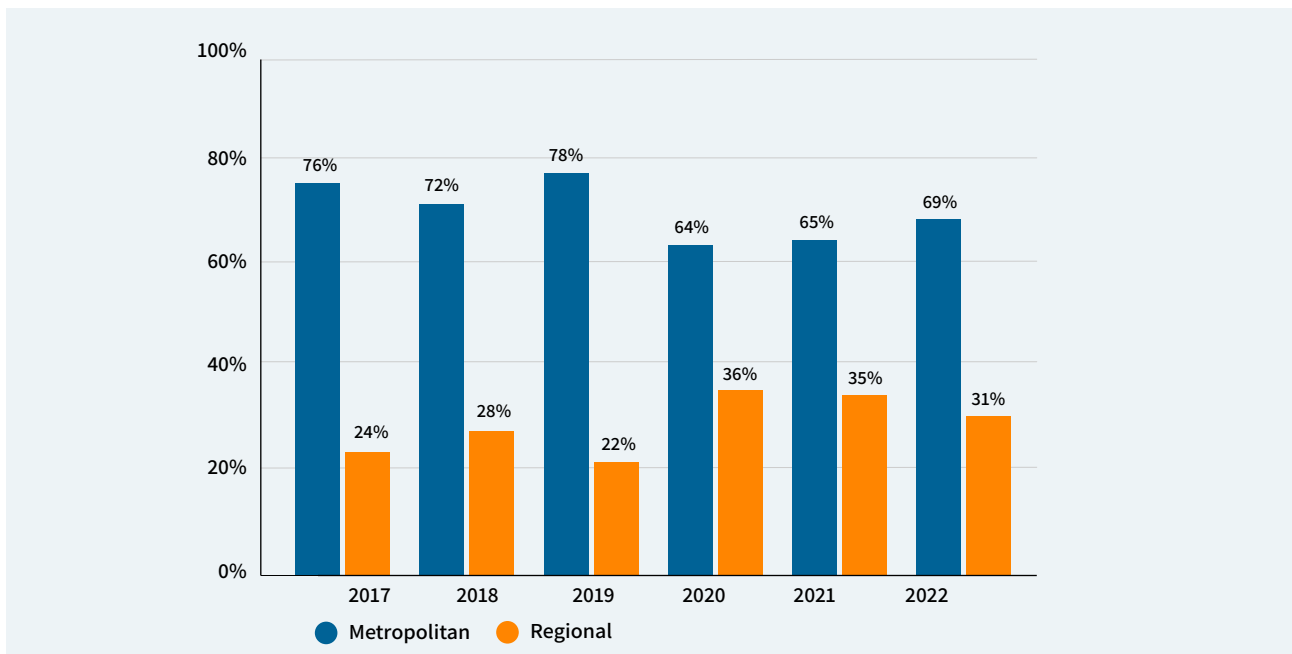
Figure 5: Number of upgrades undertaken by premises type 2017 to 2022



Regional and metropolitan certificate registrations

Over 2020 and 2021, accredited persons pivoted away from metropolitan to regional upgrades in response to coronavirus restrictions. In 2022, the percentage of certificates from upgrades in regional premises accounted for 31 per cent of certificates registered in 2022. This represents a small decline compared to the previous two years, though remained higher than the rates seen in the years preceding the coronavirus pandemic.

Figure 6: Percentage of certificates registered in metropolitan Melbourne and regional Victoria – 2017 to 2022

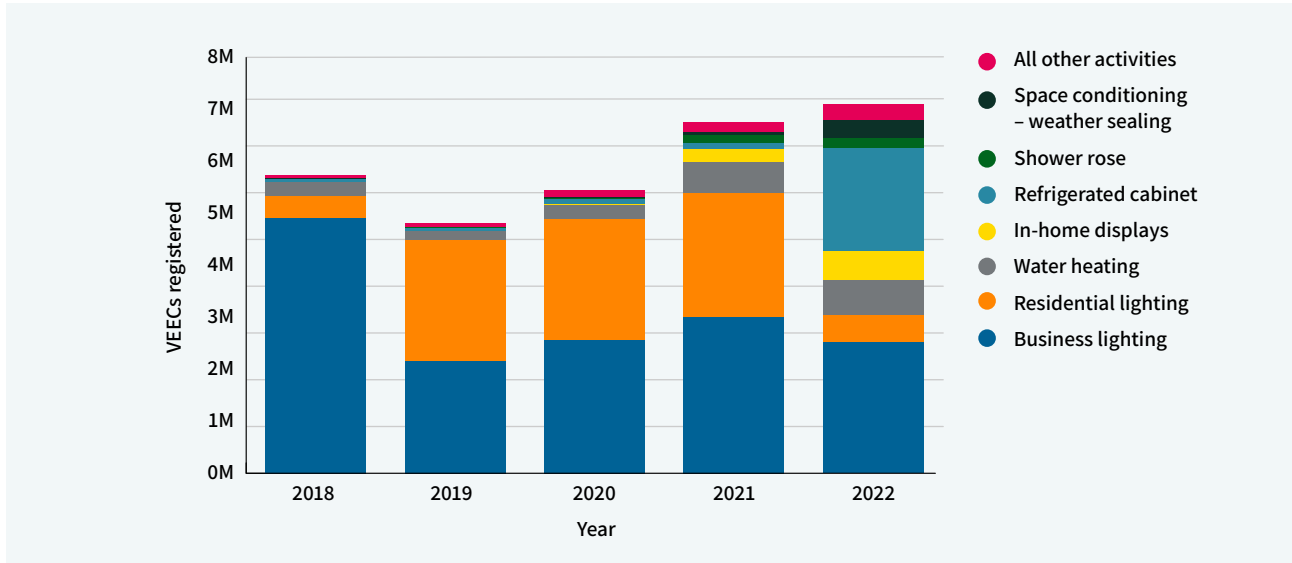


Certificates from non-lighting activities is increasing

Lighting has been a key source of certificate creation in the program since it began. The percentage of registered certificates delivered by lighting activities declined from 80 per cent of certificate registrations in 2021, to 42 per cent in 2022. Business lighting upgrades remained a popular activity, while residential lighting upgrades decreased significantly by 78 per cent in 2022.

In 2022, there was an increase in the percentage of certificates being registered by other activities in the program including in-home displays, weather sealing and refrigerated cabinet activities.

Figure 7: Certificates registered by activity type – 2018 to 2022



A large increase in volume of certificates were generated from refrigerated cabinet activities in 2022 after changes were made to the activity in October 2021, which expanded the range of products that could be installed under the activity. Following the amendment, the commission and the Department of Energy, Environment and Climate Action (the department) received feedback from stakeholders about the activity, with concerns raised that cabinets were being installed at inappropriate business premises and in inappropriate numbers. In response to this feedback, we released update guidance in March 2022 to reinforce that installations of these products must meet the requirements of the VEET Act, VEET Regulations and VEU Specifications, and be fit-for-purpose.

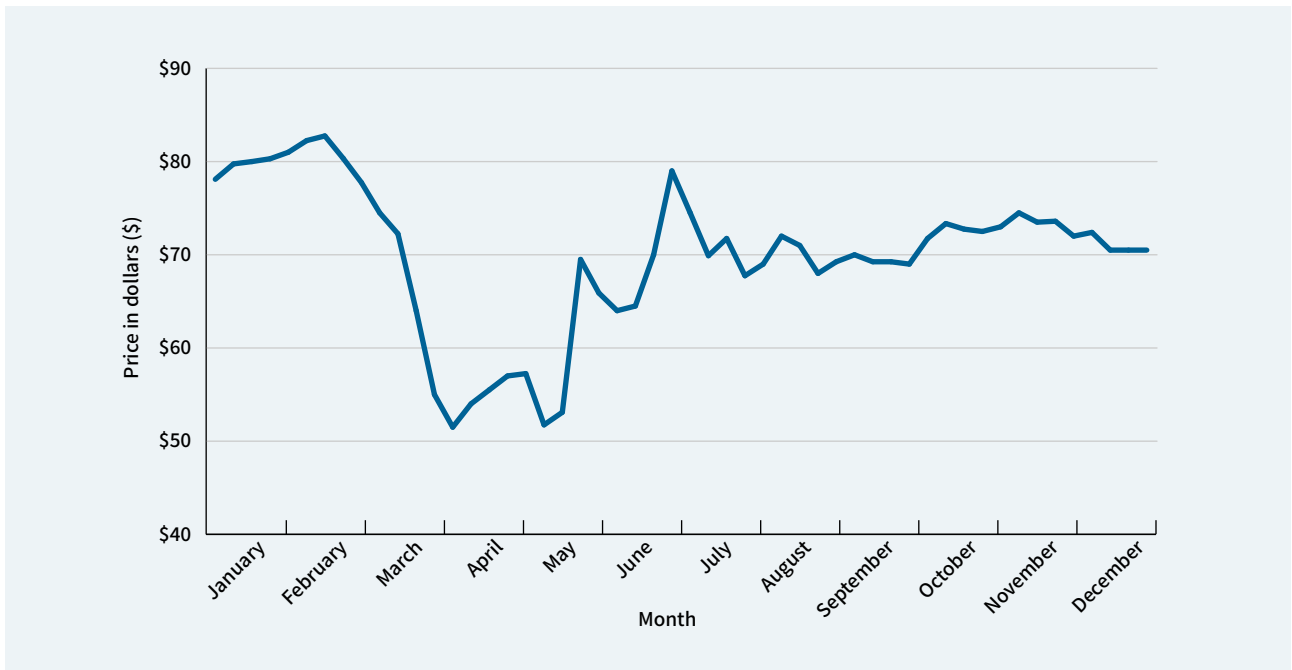
The Minister for Energy applied a zero discount factor in June 2022 to remove all incentives for ‘plug-in’ refrigerated cabinet products in response to more reports of gaming of the activity under the program until a detailed review of the activity could be completed by the department. Installations under this activity were a key focus of our investigative efforts during the year (see [page 22](#) for further information on the outcomes of our investigative efforts).

See [Appendix B: Table of VEECs created and registered by prescribed activity for a breakdown of certificates created and registered by activity type.](#)

Certificate price movements

Price volatility was high in the first half of 2022. Certificate spot price started strong at around \$80 per certificate, with a marked drop in price between February 2022 and July 2022 when a substantial volume of certificates came into the market. After July 2022, certificate registrations stabilised, as did the VEEC price at around \$70 per certificate for the remainder of the year. Since the end of the 2022 calendar year, there has been an increase in certificate price, to \$85 as at August 2023.

Figure 8: Weekly certificate spot price in dollars (\$) for Victorian energy efficiency certificates as reported in 2022



The department releases two regular publications to assist with market understanding:

- A monthly publication relating to the Victorian energy efficiency certificate market.
- A quarterly publication about the pipeline of new and revised activities for the VEU program.

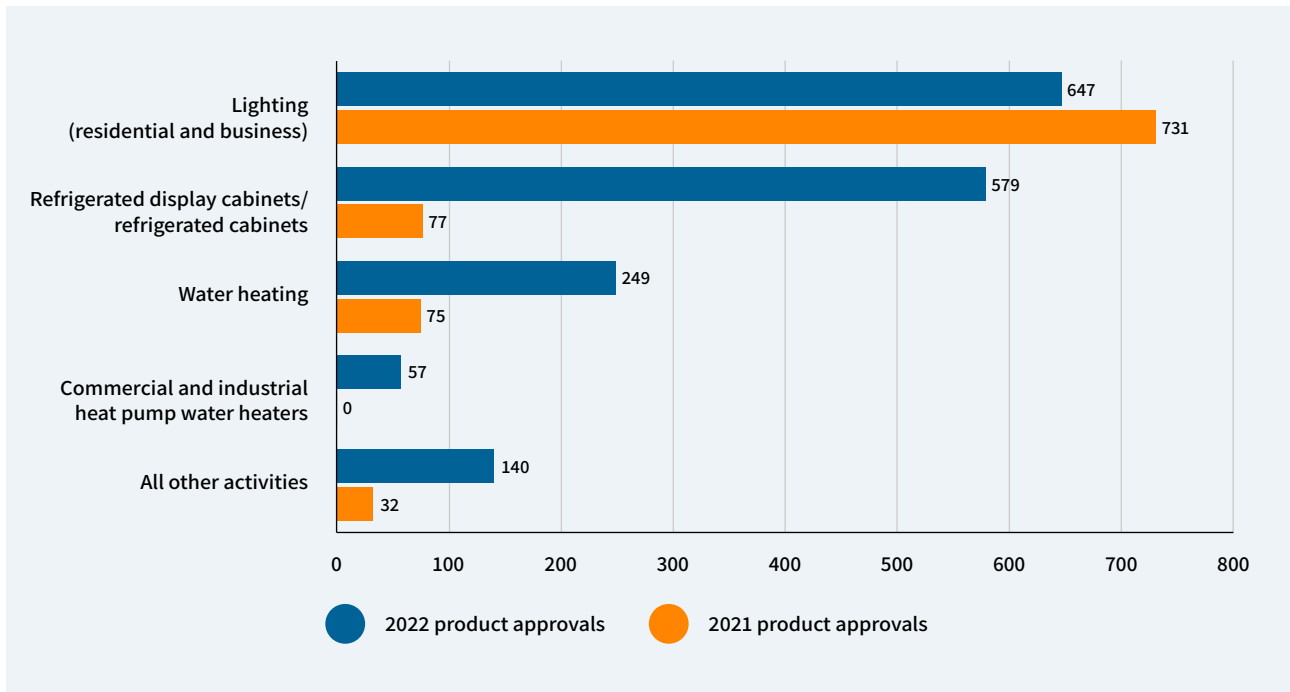
For further information see the [department's website](#).

Products approved for use in the program increased

During 2022, 1,672 new products were approved for use in the program, an 83 per cent increase from the 915 products approved in 2021. Most product approvals continued to be for lighting products, however there was a noticeable shift in the types of products being submitted for assessment. With the program’s planned phase out of lighting activities in 2023 and the change of program focus to delivery of water heating and space heating upgrades, we received increasing number of applications for more complex products such as solar and heat pump hot water systems and space heating products such as room air to air heat pumps.

Products were approved for installation under twenty-one different program activities. Fifty-seven products were approved for the newly introduced commercial and industrial heat pump water heater activity. Substantial increases in applications from the previous year were also seen in various water heating products, space heating products, and refrigerated cabinets. Changes to the program requirements for the refrigerated cabinet activity to expand the range of products able to be installed under the activity at the end of 2021 resulted in a large increase of product applications for refrigerated cabinet products in 2022.

Figure 9: Summary of product approvals – 2021 and 2022



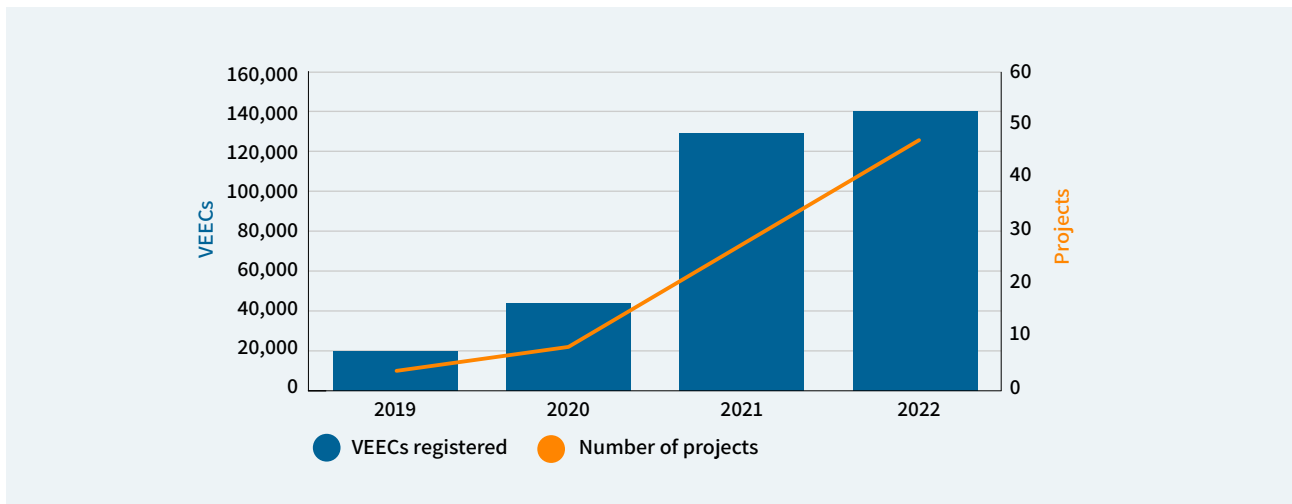
Continued growth in delivery of completed project-based activities

Project-based activities (PBA) help businesses access incentives for large and bespoke energy efficient upgrade projects. These upgrades are more complex to undertake but allow for certificates to be created for projects involving a range of different technologies and business settings. A single project can include a variety of technologies.

In 2022, we approved 48 PBA impact reports. These reports are submitted by an accredited person once the project has been implemented to determine the abatement achieved and therefore how many certificates can be created. The number of PBA projects implemented evinced an upward trend from 2019, with the number of impact reports submitted in 2022 representing a 65 per cent increase in projects delivered compared to 2021.

Forty-seven of these PBA projects delivered 140,229 registered certificates in 2022. This is an average of around 3,000 certificates awarded per PBA project, a decrease from the 2021 average of 4,600 certificates. The 2021 average was inflated by the largest PBA project to date, when 50,000 certificates were registered from the expected energy savings of one project alone. Comparatively, the largest PBA project for 2022 successfully registered 13,338 certificates during the year.

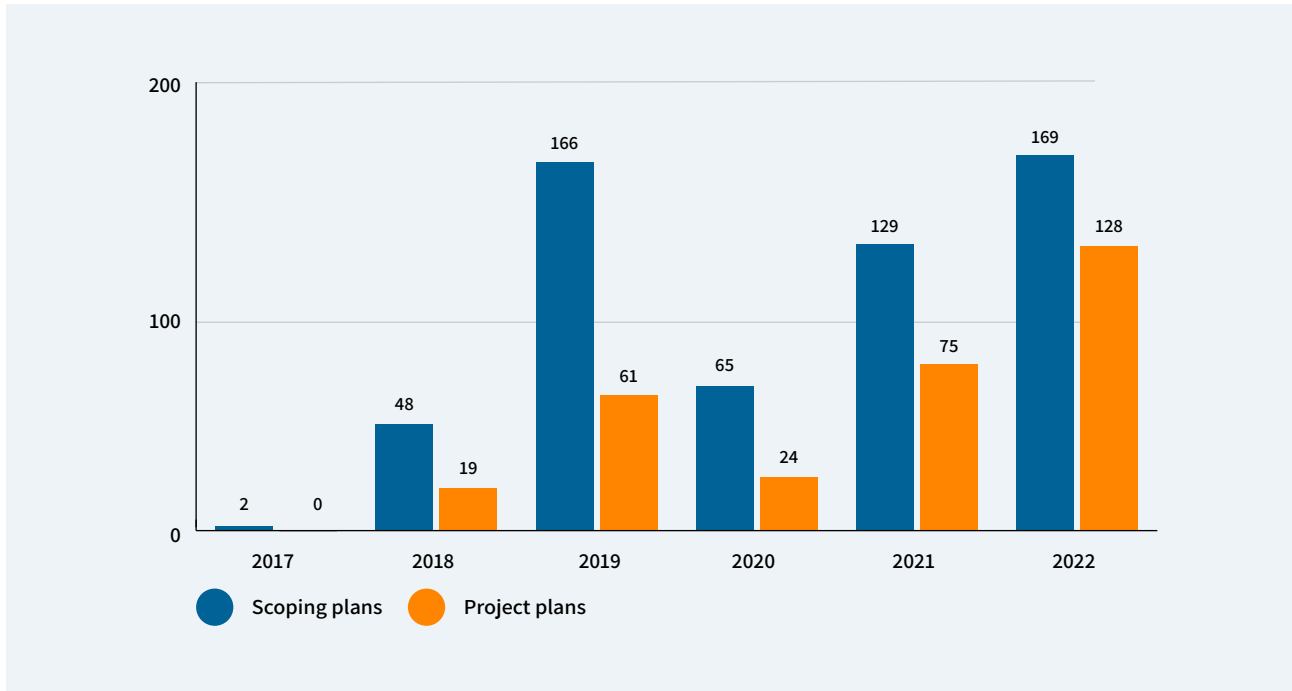
Figure 10: Number of certificates registered and number of PBA projects – 2019 to 2022



The number of projects that had their scoping plans and project plans approved increased significantly from 2020 to 2021.¹⁰ This represents the pipeline of PBA projects to be delivered in future years. From 2021 to 2022, the number of scoping plans increased from 129 to 169, while the number of project plans increased from 75 to 128, representing a rising interest in project-based activities and opportunity for PBA projects to play a key role in generating larger volume of certificates for the program in the future.

¹⁰ The scoping plan covers the project’s ownership and purpose and must be approved by the commission before work can start on the project. The project plan builds on the information in the scoping plan and is key to our assessment of a project’s eligibility to create certificates and must be provided to the commission before work can start on the project.

Figure 11: Approved PBA project and scoping plans – 2017 to 2022



In 2022, we approved two accredited persons to undertake PBA upgrades, and four new measurement and verification (M&V) professionals were approved, bringing the total of accredited persons delivering PBA upgrades to twenty-seven and approved M&V professionals to sixteen.

Figure 12: Cumulative number of accredited persons approved to deliver PBA and measurement and verification accreditation approvals – 2017 to 2022



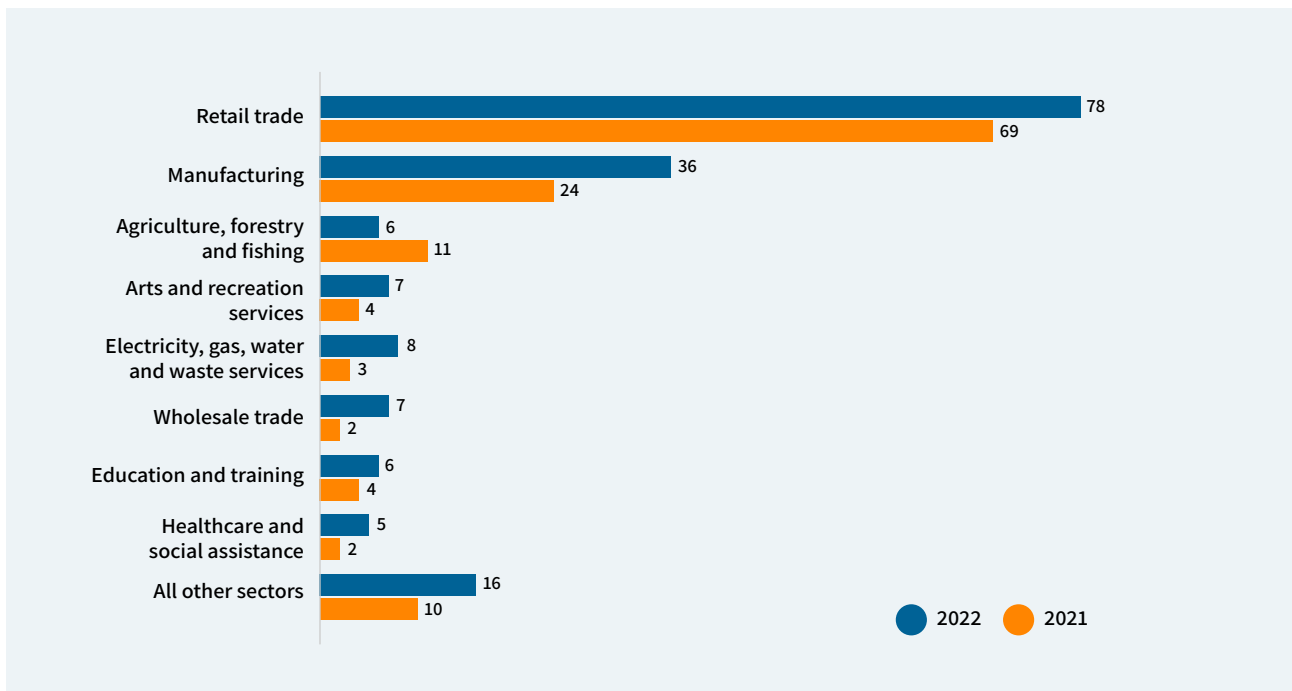
More diverse project-based activities project proposals by sector type

From the scoping plans approved in 2022, most PBA projects are to be delivered in the retail trade space. This has been the dominant sector for PBA projects since 2018. Manufacturing has been the second most popular sector for proposed PBA over the last two years.

The number of PBA projects proposed in the agriculture, forestry and fishing sectors and in commercial buildings declined over 2022, while there was an increase in scoping plans approved for multiple other sectors including electricity, gas, water and waste services, wholesale trade, education and training, and health care and social assistance.

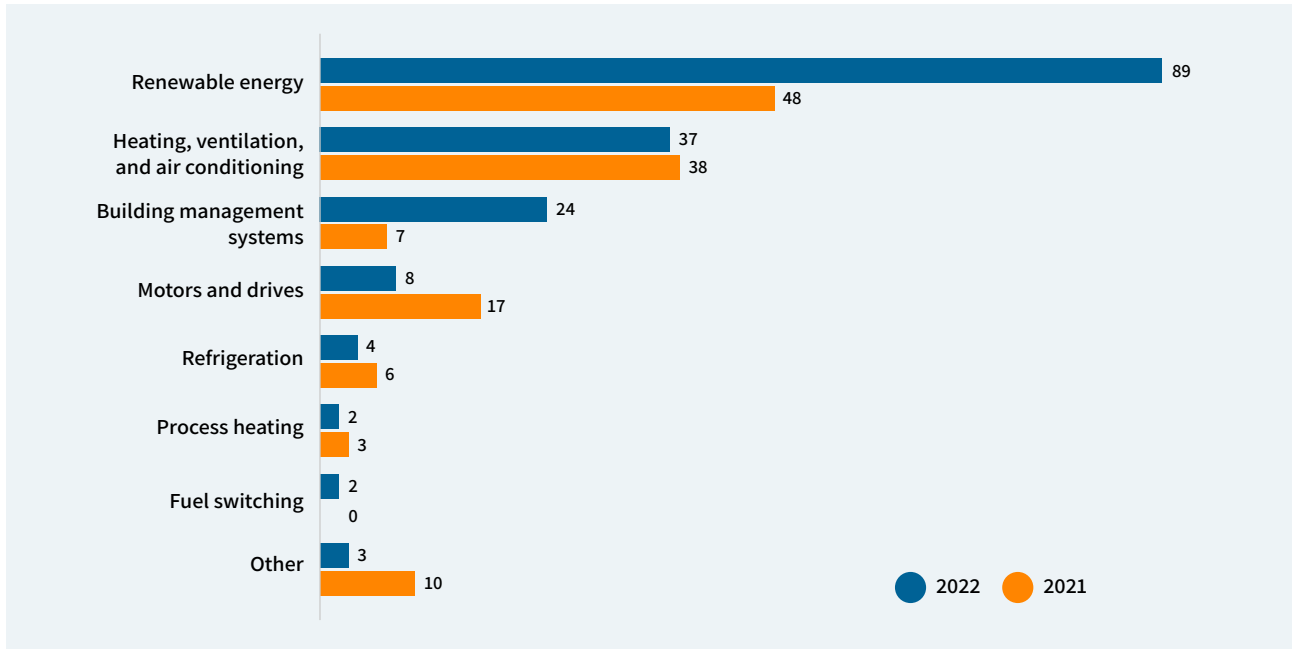
We approved the first scoping plans for the administrative and support services sector, and the public administration and safety sector. This demonstrates the range of sectors accessing energy efficiency improvements through the program is becoming increasingly diverse. Given the increasing number of project and scoping plans received, and the increasing diversity of sectors participating, the potential for energy and cost savings through PBA projects appears strong.

Figure 13: Number of PBA projects with scoping plans approved in 2021 and 2022 – by sector



Renewable energy continues to be the most popular type of technology in PBA scoping plans approved in 2022. Scoping plans approved for projects involving building management systems control optimisation also increased substantially in 2022.

Figure 14: Number of PBA projects with scoping plans approved in 2021 and 2022 by technology type



Project-based activities project approval timelines remain well under legislated timeframes

We continued to maintain required processing times in relation to PBA project approvals. The average time for approvals across all three phases of project approvals remain well under legislated timeframes.

Table 3: Average assessment times and legislated times for project based activities in 2022

Project documentation	Average time during 2022 (days elapsed)	Legislated time in PBA Regulations (days elapsed)
Scoping plan	0.9	60
Project plan	8.5	180
Impact report	5.4	120

*Please note, times are noted in days, including weekends.



Upgrades to supermarkets across Victoria

Supermarkets around Victoria have been supported to implement energy efficiency upgrades. From the introduction of project-based activities in 2017 through to the end of 2022, 395 upgrades have been made, with some locations installing multiple upgrades.

The upgrades cover a range of technologies:

- heating, ventilation and air-conditioning, including heat pumps which recover waste heat from refrigeration systems
- building control management system optimisation
- refrigeration upgrade
- solar photovoltaic installation
- bakery oven upgrades
- variable speed drive installation
- building fabric upgrades.

The expected greenhouse gas emissions savings from these upgrades is over 471,000 tonnes.¹¹ In 2022, 81 supermarkets benefitted from upgrades under the program, expecting a saving of over 78,000 tonnes of greenhouse gas emissions.¹¹

Upgrades in the healthcare sector

Australia's health care system contributes seven per cent of the country's total annual greenhouse gas emissions.¹² In 2022, two projects created Victorian energy efficiency certificates in the healthcare sector, resulting in over 6,000 tonnes of expected greenhouse gas savings.

The projects included:

- installation of 500 kW solar photovoltaic panels
- efficiency upgrades to the hospitals' steam boilers
- installation of new efficient gas fired boilers
- Heating, ventilation and air-conditioning control optimisation.

Investment in these upgrades reduces the facilities' energy and maintenance costs which enables the channeling of more resources toward patient care. These upgrades also result in the delivery of more comfortable heating outcomes for patients. With five scoping plans approved in 2022 for projects in the healthcare and social assistance sector, the program is positioned to drive more energy and cost savings in the sector over the coming years.

¹¹ 14% of these projects have not yet provided savings estimates.

¹² Malik A, Lenzen M, McAlister S, et al. The carbon footprint of Australian health care. *Lancet Planet Health* 2018; 2: e27– e35.



Compliance and enforcement in 2022

In 2022, the commission published a new compliance and enforcement policy, took new types of enforcement action, and further developed its risk-based compliance approach.

Changes to the commission’s compliance and enforcement approach

There were significant changes to our compliance and enforcement approach in 2022.

- We published a new [Compliance and Enforcement Policy](#) in April.
- We continued our risk-based auditing and investigation model, providing targeted checks of suspicious and high-risk conduct and certificates as well as randomised compliance checks.

As part of the new compliance and enforcement approach, we pursued more robust regulatory outcomes. One example of this was in June, when the Commission exercised its power to suspend an accredited person, the first such suspension in nine years. A further suspension and a revocation of accreditation followed later in the year.

VEU code of conduct introduced into the program

On 1 July 2022, the VEU code of conduct was introduced. The code requires accredited persons to set out the minimum standards that consumers should expect from people and businesses delivering discounted products and services through the program. The code promotes good conduct and compliance with specific consumer protections. Under the code, accredited persons are accountable for any breaches of the code by their scheme participants (persons that undertake aspects of an upgrade on behalf of an accredited person such as lead generation, marketing, scheduling and/or installation).

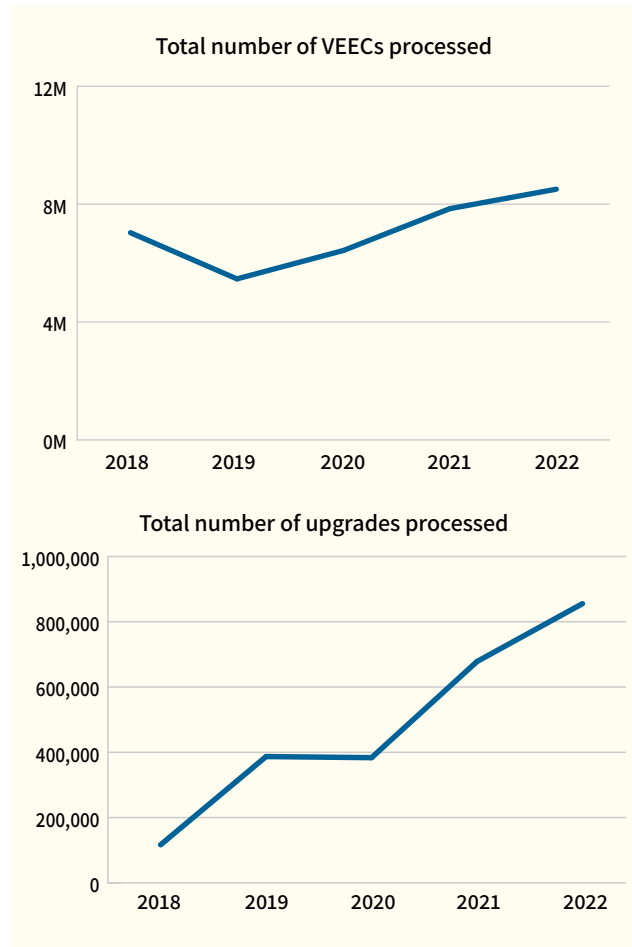
Certificates created in contravention of the code are not eligible for registration. We undertook education webinars for accredited persons, scheme participants and consumer advocates. We also devoted additional resources to monitoring compliance with the code and investigating complaints regarding code breaches.

Pre-registration checks of certificates outcomes

We make sure that certificates are eligible for registration, before they are registered, taking a risk-based approach to checking whether upgrades are eligible for certificates. The total number of certificates processed rose slightly this year, with 7,923,535 processed in 2021 and 8,253,708 in 2022.

Despite the small increase in certificates processed, there was a more significant 26 per cent increase in the total number of upgrades represented by those certificates. This demonstrates a high volume of low generating certificate upgrades being undertaken in 2022.

Figure 15: Pre-registration summary of certificates and upgrades processed — 2018 to 2022



In response to the higher volume of upgrades, we assessed and issued requests for further information (RFIs) for 88,879 upgrades over the year, a 55 per cent increase from the 57,463 upgrades for which we requested information in 2021. This increased volume of RFIs issued also represents an increase in our RFI request rate per 10 upgrades from 0.8 in 2021 to 1.0 in 2022 (see Table 4 below).

In 2022, we identified more upgrades with potential compliance issues. 9,830 upgrades were identified, representing an increase of 169 per cent from the previous year (3,645 upgrades). The potential compliance issues rate per 100 upgrades also increased – from 0.5 to 1.15 compared to the previous year (see Table 4 below). Where a potential compliance issue is identified, the accredited person will either:

- take corrective action (for example, taking corrective work on the upgrade and/or collecting more records to evidence a compliant upgrade) before resubmitting the upgrade for the commission to make an assessment on registration of its certificates
- withdraw the certificates for the upgrade from assessment for registration.

The increase in RFIs and identification of potential compliance issues reflects a continuing compliance and engagement focus for the commission. Certificates required to be surrendered for non-compliance, as a proportion of certificates registered, decreased in 2022 from 2021.

Figure 16: Total number of upgrades subject to a request for further information and potential compliance issues – 2017 to 2022

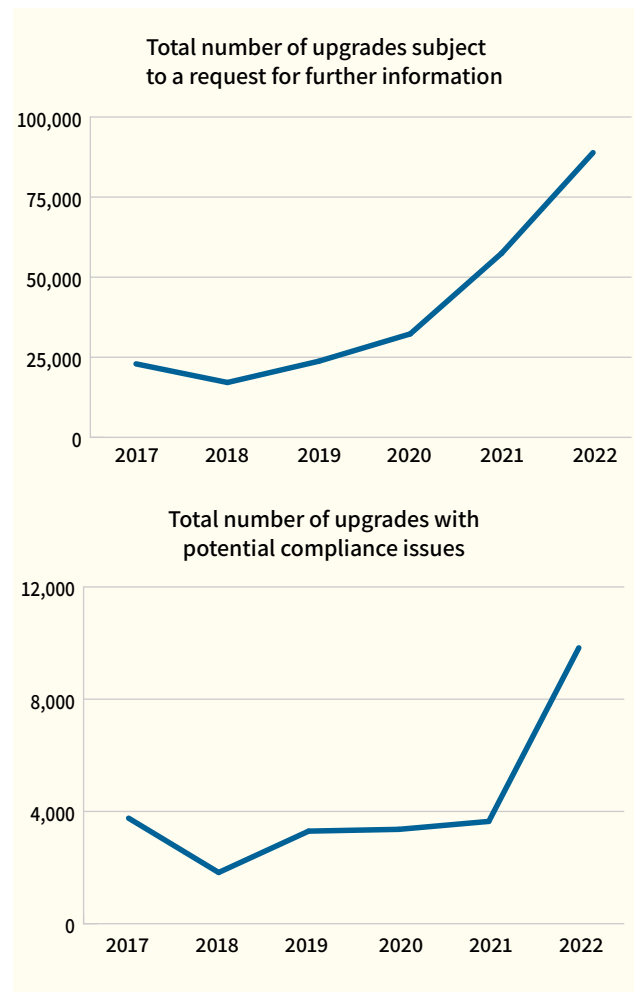


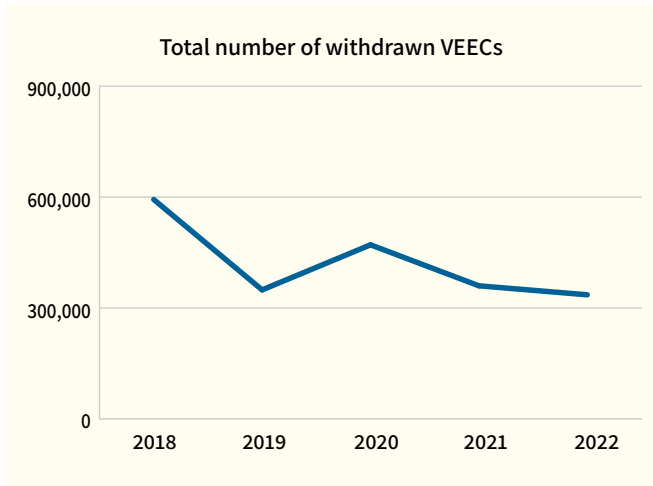
Table 4: Request for information and potential compliance issues identified as a proportion of upgrades undertaken

Sampling type	2017	2018	2019	2020	2021	2022
Number of upgrades subjected to requests for further information per 10 upgrades	1.8	1.5	0.6	0.8	0.8	1.0
Number of upgrades identified with potential compliance issues per 100 upgrades	2.8	1.5	0.7	0.8	0.5	1.15

The number of certificates withdrawn decreased in 2022

In 2022, 335,718 certificates were withdrawn by accredited persons in respect of 21,508 upgrades, a slight decrease from the previous year.

Figure 17: Total number of VEECs withdrawn by year – 2018 to 2022

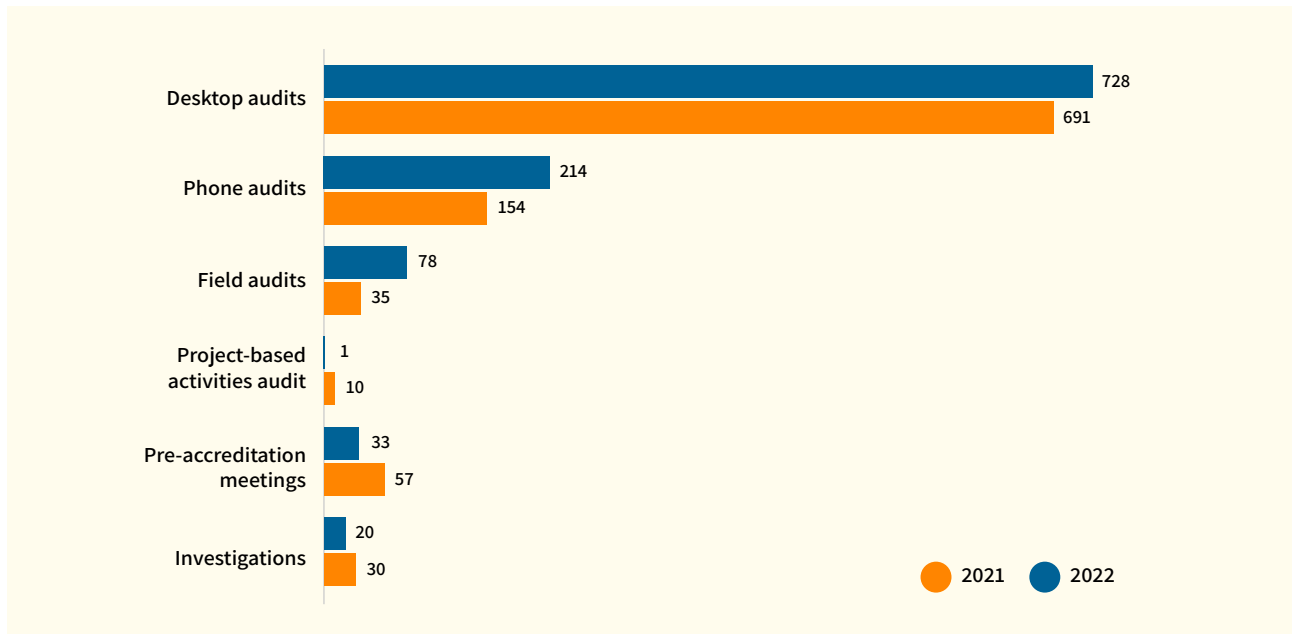


We undertook over 1,000 audits and investigations

Our compliance and investigation work ensures that accredited persons are creating certificates which comply with legislative requirements. In 2022, the commission conducted 1,020 upgrade audits consisting of phone, desktop and field audits.¹³

We also carried out 33 pre-accreditation meetings and 20 investigations during the year. In accordance with the commission’s developing risk-based approach, fewer investigations were conducted in 2022 than the previous year, but some investigations were more complex, than previous years’ investigations. In 2022, the commission’s investigations focused on installations undertaken in farms and businesses in regional Victoria and refrigerated cabinet upgrades in metropolitan Melbourne.

Figure 18: Number of audits and investigations conducted in 2021 and 2022



¹³ The program has historically referred to audits to cover a range of compliance and assurance checks. Since 1 July 2023, the term audit refers to specific statutory functions. Future performance reports will reflect these updated statutory terms.

Our compliance and investigation efforts resulted in the surrender of 13,020 certificates by accredited persons due to non-compliance in 2022. This is equivalent to over \$900 000 worth of certificates.¹⁴

Investigation: non-compliant refrigerated cabinet activity

We started a 12-month investigation into allegations of non-compliant refrigerated cabinet activity under the program rules in June 2022.

We found evidence of non-compliance with installation, evidentiary and record-keeping requirements. The commission rejected the registration of 18,238 VEECs created by nine accredited businesses for 85 separate refrigerated cabinet upgrade activities which did not comply with the program rules. This is less than one percent of the approximately 2.4 million certificates created in respect of the refrigerated cabinets activity under the program since October 2021, when the VEU Specifications were amended to expand the range of products eligible for installation under the activity.

The investigation included site inspections, interviews with customers, supporting document assessments and other compulsory information gathering processes under the VEET Act.

In addition to enforcement action, the commission published a [report of its findings](#), and shared its findings with co-regulators, including Solar Victoria and the Independent Pricing and Regulatory Tribunal, the regulator of New South Wales' Energy Efficiency Scheme.

¹⁴ Based on average price of \$70 per certificate.

We took significant enforcement actions in 2022

As part of our 2022 enforcement actions, the commission suspended two accredited persons – the first suspensions since 2009 – and revoked an accreditation. This was the first revocation since 2013.

Enforcement actions for non-compliant lighting installations

In 2022, we gathered evidence of alleged breaches over a six-month period involving energy efficient lighting upgrades across farms and businesses in regional Victoria. We found that two accredited persons, Sara Corporation Pty Ltd trading as Australian State Energy Upgrades and Pan West Group Australia Pty Ltd trading as Green Target Australia, had created Victorian energy efficiency certificates for activities, undertaken by subcontractors, that were allegedly non-compliant. Alleged contraventions included installing lighting at premises which were not connected to electricity and overstating the level of pre-upgrade energy use.

As a result of our investigation, enforcement actions taken by the commission included:

- Suspending both Australian State Energy Upgrades and Green Target Australia for a period of three months.
- Ordering Australian State Energy Upgrades to surrender 47,909 certificates and Green Target Australia to surrender 14,987 certificates.
- Requiring both Australian State Energy Upgrades and Green Target Australia to engage an independent auditor to review its internal processes and controls.

Australian State Energy Upgrades' accreditation was revoked in November 2022 for failure to comply with the commission's order to surrender certificates.

We referred the allegations of fraud to Victoria Police. We also referred potential breaches of the *Electrical Safety Act 1988* to Energy Safe Victoria in relation to the conduct of installers.

In December 2022, the commission also took enforcement action against Phenix Trading Pty Ltd trading as LED Saves, for non-compliant lighting activities. LED Saves self-reported a number lighting activities that were completed by sub-contractors and were suspected to be non-compliant. The commission conducted an investigation with the cooperation of LED Saves.

LED Saves' alleged contraventions included overstating the level of pre-upgrade energy use, altering the in-situ environment and conducting an ineligible form of upgrade of the purpose of a prescribed activity.

Enforcement actions taken by the commission were to:

- Order LED Saves to surrender 9,455 certificates.
- Require LED Saves to engage an independent auditor to review its internal processes and procedures.
- The commission did not suspend the accreditation of LED Saves in consideration of its self-reporting and cooperation during the investigation.

Compliance by relevant entities

The VEET Act requires energy retailers (relevant entities) to surrender certificates if they are:

- Energy (electricity and gas) retailers with at least 5,000 residential customers.
- Retailers with program acquisitions of at least 30,000 MWh of electricity or at least 350,000 GJ of gas in one compliance year.

Energy retailers must provide the commission an annual energy acquisition statement and an independent audit report detailing the amount of electricity and/or gas sold to eligible premises for the year. Statements must be submitted, and the required number of certificates surrendered, by 30 April each year (unless an extension is provided by the commission to nominate a later day for submission).

Thirty-two Victorian energy retailers surrendered 6,603,700 certificates in 2022. Four energy retailers failed to surrender certificates to meet their greenhouse gas emissions liability by 30 April 2022. Table 5 summarises our audit of submissions and certificate surrenders.

Table 5: Audit outcomes of our review of energy retailers’ annual energy acquisition statements and certificates surrendered

Details	Total
Energy retailers identified as relevant entities	36
Relevant entities that submitted their annual energy acquisition statement and independent audit report by 30 April	33
Relevant entities that surrendered sufficient certificates to meet their annual liability	32
Relevant entities that had an energy efficiency certificate shortfall	4
Number of certificates surrendered by relevant entities for 2022	6,603,700
Amount of relevant entities’ energy efficiency certificate shortfalls:	21,920
• Elysian Energy Pty Ltd	8,122
• Mojo Power East Pty Ltd	2,733
• QEnergy Limited	10,395
• Weston Energy Pty Ltd	670

Seven relevant entities paid over \$1.5 million for penalties issued in 2022

The commission issued shortfall penalties to eight relevant entities in 2022, for failing to surrender the total number of certificates owing for the 2021 compliance year. Of the eight, seven relevant entities have made their payments in full which amounts to penalty payments of over \$1.5 million as listed in Table 6 below.

Table 6: List of payments made by relevant entities for energy efficiency certificate shortfall penalties issued in 2022

Energy retailer (relevant entity)	Certificate shortfall for the 2021 year	Penalty paid	Payments received
Click Energy Pty Ltd	906 certificate shortfall	\$63,420	Paid in full (December 2022)
Lumo Energy Australia Pty Ltd	1,585 certificate shortfall	\$110,950	Paid in full (November 2022)
M2 Energy Pty Ltd	164 certificate shortfall	\$11,480	Paid in full (November 2022)
Red Energy Pty Ltd	7,355 certificate shortfall	\$514,850	Paid in full (November 2022)
Weston Energy Pty Ltd	3,764 certificate shortfall	\$263,480	Paid in full (December 2022)
Mojo Power East Pty Ltd	2,135 certificate shortfall	\$149,450	Paid in full (June 2023)
QEnergy Limited	6,136 certificate shortfall	\$429,520	Paid in full (June 2023)

The commission commenced court proceedings in the Supreme Court of Victoria in respect of two relevant entities who failed to make the required shortfall payments, Mojo Power East Pty Ltd and QEnergy Limited. One relevant entity, Elysian Energy Pty Ltd went into administration and has not paid the shortfall penalty issued to it by the commission.

Supreme Court decision in Essential Services Commission action against Mojo Power East Pty Ltd and QEnergy Limited [2023] VSC 460

On 21 July 2023, the Supreme Court of Victoria made declarations that Mojo Power East Pty Ltd and QEnergy Limited had contravened section 27(1) of the Victorian Energy Efficiency Target Act by having energy efficiency certificate shortfalls.

At the time of this judgement both entities had paid the outstanding shortfall penalties, but the court ordered that each entity pay the commission amounts representing statutory interest for the period penalties remained unpaid and the commission’s costs of the proceedings.

The court noted, that it ought not to have been necessary for the commission to have to commence proceedings and the declaration recorded the court’s disapproval of companies who contravene their statutory obligations under the VEET Act.

There are significant penalties for contravention of the VEET Act. The commission is committed to ensuring all Victorians can have confidence in the program and will not hesitate to take court action if people are not meeting their liabilities or obligations under the program.

Increase in consumer complaints in 2022

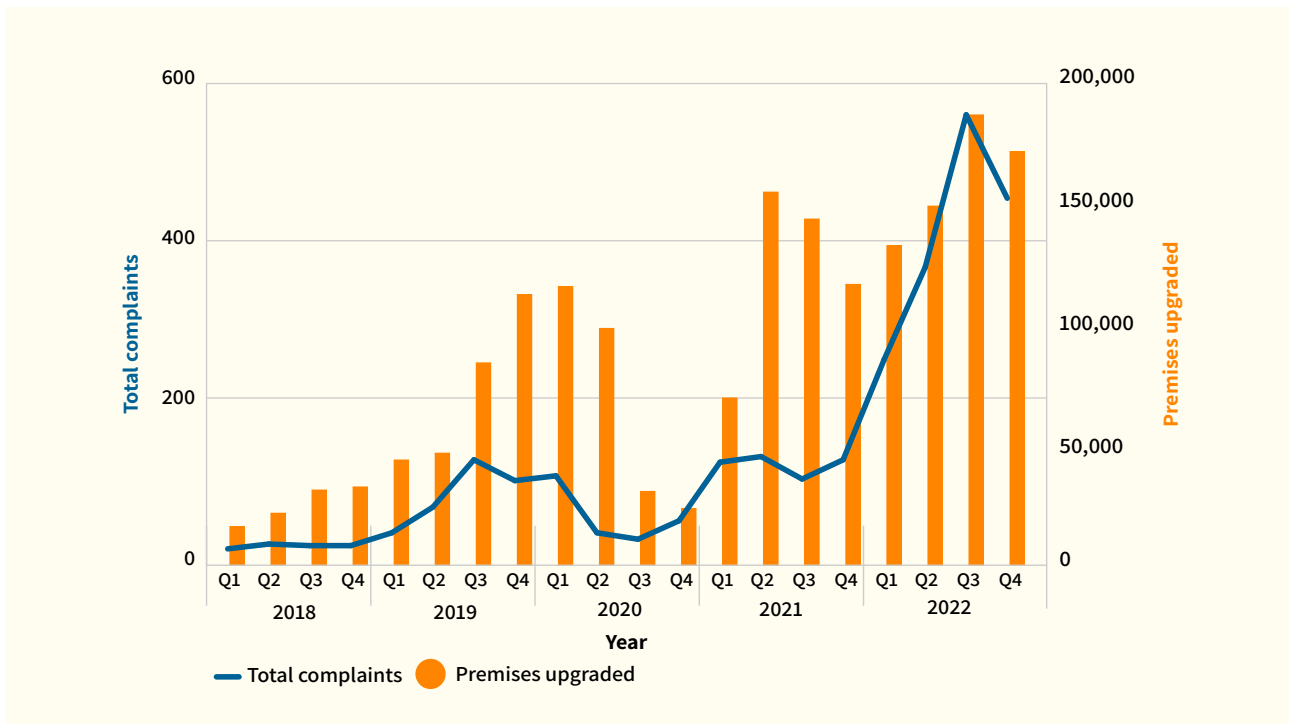
In 2022, we received 1,645 complaints from consumers, compared to 501 complaints in 2021. We also saw an increase in the rate of complaints per upgraded premises – 31 complaints for every 10,000 premises upgrades during the year, compared to 13 for every 10,000 premises upgraded in 2021.

The rise of consumer complaints is an issue we worked actively with the department and other regulators such as Consumer Affairs Victoria and the Australian Communications and Media Authority (ACMA) in 2022 to address. The increase in complaints about VEU-related marketing misconduct led the Minister for Energy and Resources to announce a ban on telemarketing and other high-risk forms of unsolicited marketing under the program in June 2023 to protect consumers. The department is working to finalise the design and implementation of this ban.

One factor which may have contributed to the rise in complaints received was the introduction of the VEU code of conduct (the code) from 1 July 2022. The code established a standard of behaviour for accredited persons and scheme participants when delivering upgrades to Victorian consumers under the program. In implementing the code, we took steps to educate consumers about these rights under the code including publishing a factsheet about consumer rights that accredited persons could supply to consumers as a means of satisfying part of the obligations under the code. Our contact details were included in this factsheet for consumers to report any program related complaints.

In 2022, there was also a high installation rate of activities that generate a low number of certificates, such as weather sealing, shower roses and in-home displays. Data collected by the commission suggests that low certificate volume activities like these often lead to higher volumes of consumer complaints regarding lead generation and installer conduct. As we prepare for an increased focus on consumer rights in 2023, this data will be put toward our risk analysis for selecting investigation targets.

Figure 19: Total number of complaints by premises upgraded – 2018 to 2022



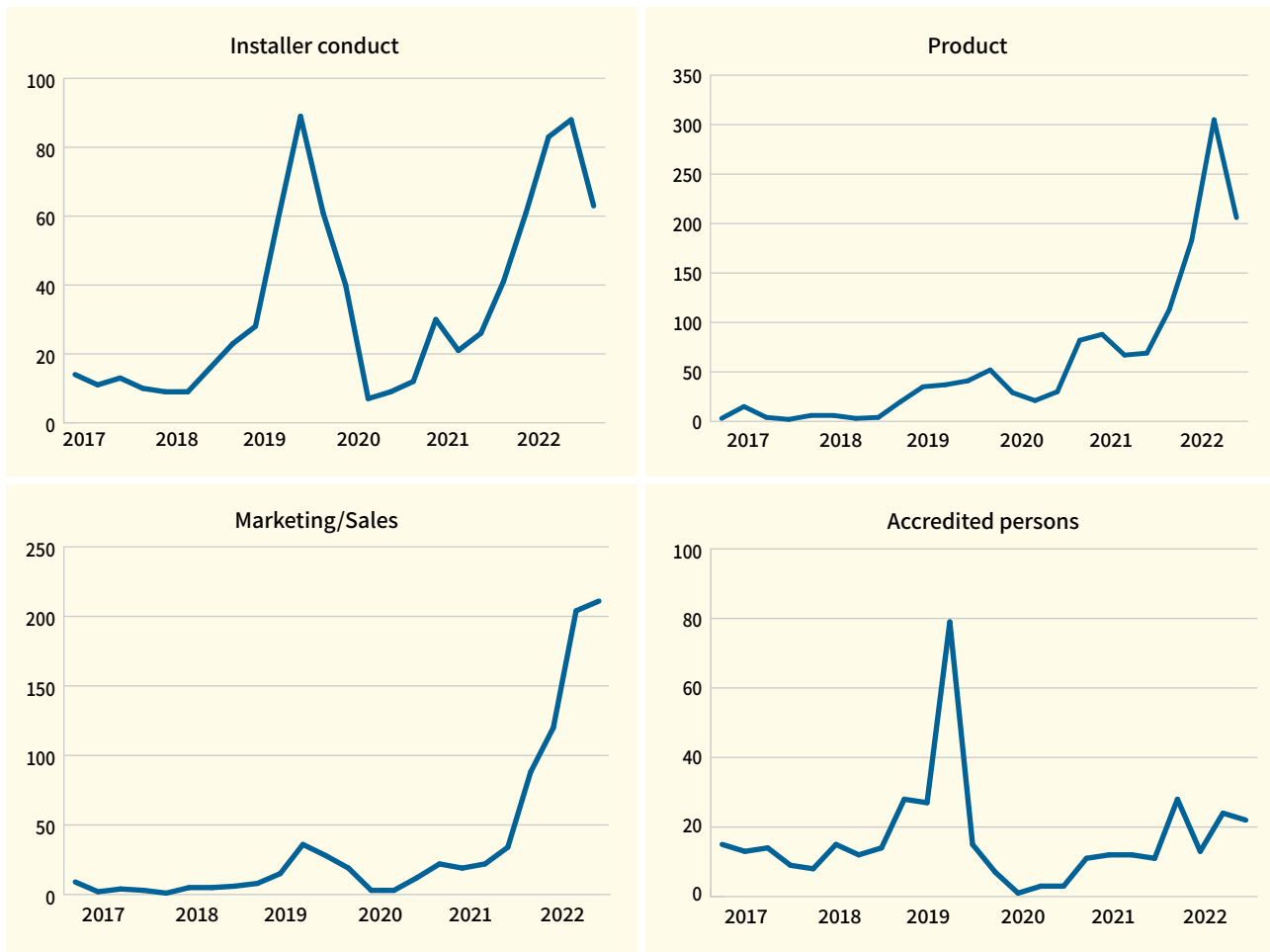
Compliance and enforcement in 2022

Each complaint the program receives is recorded and categorised against one or more complaint category. The categories include:

Installer conduct	Marketing/sales	Product issues	Accredited providers
<ul style="list-style-type: none"> Ineligible or incomplete upgrades Occupational health and safety issues General installer behaviour and conduct Property damage and unattended bookings 	<ul style="list-style-type: none"> Complaints relating to communications such as telemarketing, flyers, websites, doorknocking activities and shopping centre booths Questionable use of government and/or program logos and branding 	<ul style="list-style-type: none"> Issues including product failing or breaking Warranty issues, or products being not fit-for-purpose 	<ul style="list-style-type: none"> Accredited providers being unresponsive to consumer calls or emails Failure to provide assignment forms or other paperwork

In 2022, there was a marked increase in complaints related to product issues, marketing and sales, and installer conduct, compared to previous years of complaints in those categories. The volume of complaints for the accredited person category was relatively steady compared to previous years.

Figure 20: Quarterly trend by complaint categories — 2017 to 2022



Five consumer complaints referred to Consumer Affairs Victoria

Our complaints management process regularly identifies the conduct of program participants that may contravene Australian Consumer Law. We are committed to taking appropriate action when such concerns arise to protect consumers and the integrity of the program.

We referred five complaints to Consumer Affairs Victoria in 2022, relating to accredited persons providing potentially false or misleading representations to consumers:

- about the business representing the Victorian Government
- about the consent or approval obtained from residential consumers
- about the requirement for the consumer to undertake an energy efficient installation.

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Program reform and development in 2022

Changes to the Victorian Energy Efficiency Target Regulations to include a new code of conduct and the introduction of amendments to the *Victorian Energy Efficiency Target Act* in 2022 were first steps in increased consumer protections for the program.

The legislative framework and administrative settings for the program is complex and updated regularly. However, the introduction of a code of conduct and the amendments to the VEET Act in 2022 signifies a new era of consumer protection and accountability for businesses delivering upgrades in the program.

This section:

- sets out key developments impacting the program in 2022
- provides an overview of our work to manage the program's operations and changes
- outlines our engagement and collaboration with stakeholders and government agencies to deliver better outcomes for the program.

Code of conduct – improving outcomes for consumers

The code of conduct came into effect on 1 July 2022. The code sets out the minimum standards that consumers can expect from people and businesses delivering products and services through the program, thereby protecting consumers and strengthening public confidence in the program.

Consumer protection is central to the code of conduct. The code is intended to ensure that both accredited persons (businesses that create certificates) and scheme participants (persons that undertake aspects of an upgrade on behalf of an accredited person such as lead generation, marketing, scheduling and/or installation) act in a professional and ethical manner and meet high standards of conduct in their details with energy consumers and other persons in particular with respect to marketing and provision of information.

A certificate cannot be created in relation to an activity if the code has not been complied with. Following changes that came into effect on 1 July 2023, it is an offence not to comply with the code of conduct. The commission is now empowered to take enforcement action in relation to the conduct of lead generators, marketers, contractors, installers and other persons who participate in the program.

Stakeholder engagement on the code

To accompany the code coming into effect, the commission emphasised engagement with key stakeholders including industry (accredited persons and scheme participants) and consumer advocacy groups.

Primarily, engagement focused on familiarising stakeholders with the content of the code and providing specific examples of its application suitable to the target audience. We held four content focused workshops for specific industry stakeholder groups to align the subject matter with the specific knowledge required. Additionally, a fifth workshop was conducted to inform consumer advocacy groups about the code and how the code supports their members and those they represent, especially consumers on low incomes or experiencing vulnerability.

The commission also developed and published a number of resources to support both industry and consumers including:

- The code of conduct guideline.
- Industry guides and checklists to assist scheme participants to understand the code's requirements for each stage of delivery of an upgrade.
- Statement of rights document for provision to consumer.
- Consumer information resource to help consumers understand their rights under the program.

Above resources are all available to download from the [commission website](#).

Program reforms

VEET Act amendments to improve regulatory outcomes under the program

In 2022, the Department of Energy, Environment and Climate Action completed its review and design of the amendments to the VEET Act. The amendments to the program covered by the VEET Amendment Bill 2022 received Royal Assent on 23 August 2022. The amendments of the VEET Act have started taking effect from 1 July 2023.

The amendments of the VEET Act were intended to ensure that the program has an appropriate legislative framework and strong consumer protections as it transitions to higher targets, more installations of energy savings equipment and greater energy savings for Victorian households and businesses.

Changes introduced to the program by the passing of the VEET Amendment Bill include:

- Introduction of new requirements relating to accreditation, including annual review and fit and proper person, and competent and capable person requirements.
- Introduction of new offences and associated linkages with existing enforcement powers under the *Essential Services Commission Act 2001*.
- Making provision for internal review and review by the Victorian Civil and Administrative Tribunal (VCAT) of a broader range of decisions made by the commission.
- Providing for the conduct of compliance audits and assurance audits of accredited persons.
- Extending the program by one year from 2029 to 2030.

Review to set new program fees with the aim of achieving cost recovery

In 2022, the department was also working to develop the regulatory impact statement (RIS) which sets out the reasons for, and the basis, of proposed new fees payable to the commission as the administrator and regulator of the program. The current fees for the program were set to expire on 19 October 2023 and have not changed since the program started in 2009.

A new fee structure was needed to enable the commission to effectively administer and regulate the program, including to implement the expanded range of functions and tools under the VEET Amendment Act from 1 July 2023. The new program fees commence in two stages, with some fees commencing on 1 July 2023 and the other fees to commence 1 November 2023.

Amendments to the VEET Regulations and Specifications

The department reviews the program framework regularly to respond to emerging issues and to respond to technological changes in the industry. Table 7 below sets out changes made to the program’s legislative framework in 2022 (not including changes introduced by the *VEET Amendment Act 2022* as noted in section above).

In response, we developed regulatory and administrative requirements to support the changes. This included releasing communications, guidance documents and forms to assist stakeholders’ understanding of and compliance with the changes to the rules.

Table 7: Legislative changes to the program in 2022

Date of change	Legislative instrument	Detail of changes
1 February 2022	Release of VEU Specifications – Version 12.0	<ul style="list-style-type: none"> • Introduction of the commercial and industrial heat pump water heater activity. • Removal of building based lighting upgrade activity at sites required to comply with Part J6 of the Building Code of Australia (activity 34 J6) from the program. • Implementation of a reduced high intensity discharge (HID) incentive for lamps under building-based lighting upgrade (activity 34 non J6) • Annual adjustment of the electricity emissions factor input value in emissions reduction calculations from 0.9546 to 0.8142.
1 February 2022	Release of Measurement & Verification Specifications – Version 7.0	<ul style="list-style-type: none"> • Changes to the project-based activities’ measurement and verification method to reflect the updated emissions factors from the National Greenhouse Accounts.
29 June 2022	Declaration of discount factor of zero by the Minister for Energy	<ul style="list-style-type: none"> • Removal of incentives for any refrigerated cabinet products installed that belongs to products class 1 to 11 (inclusive) under the Greenhouse and Energy Minimum Standards (Refrigerated Cabinets) Determination 2020 (Cth).
1 July 2022	Release of VEET Regulations – Version No. 008	<ul style="list-style-type: none"> • Introduction of the VEU code of conduct setting minimum standards of behavior for accredited persons and scheme participants involved in delivery of upgrades and services under the program.
19 September 2022	Release of VEU Specifications 2018 – Version 13.0.	<ul style="list-style-type: none"> • Inclusion of revised minimum thermal efficiency requirements for gas-fired steam boiler and gas-fired water heater activities (activity 37 and 38). • Other minor amendments to clarify specific activity requirements and to clarify relationship between the VEU Specifications and the Regulations.

Updates to our program requirements and administrative framework

In 2022, we published a range of updated guidance documents and forms setting out our changes in requirements and administrative framework. This was done in response to emerging issues identified during the year. Key updates made to our administrative requirements during the year are outlined in the following table.

Table 8: Administrative requirement changes made to the program in 2022

Date of release	Updates made
31 March 2022	Updated activity guide and VEEC assignment form for refrigerated cabinet activity.
1 April 2022	Updated product application guides and forms to reflect the integrated application process for residential/business and commercial and industrial heat pumps and solar hot water heater products across the Victorian Energy Upgrades program and New South Wales' Energy Savings Scheme .
22 April 2022	Updated product application guides for water heating products to clarify the required product standard in the program.
28 April 2022	Updated activity guide for refrigerated cabinet activity to clarify eligible installation environments.
12 August 2022	Updated scoping plan approval form and combined scoping and project plan approval form for projects under the measurement and verification (M&V) method of the program's project-based activities (PBA).
6 September 2022	Updated product application guides to clarify listing process for GEMS-listed products, laboratory accreditation and test requirements for commercial and industrial heat pump water heater products.
15 December 2022	Update to product application guides for water heating and space heating and cooling products and in-home display products to clarify test requirements.

For more information, visit [Updates to the VEU program | Essential Services Commission](#)

Engagement with our program participants

A key principle of our regulatory approach is to engage with businesses participating in the program. For program participants, particularly accredited persons, we seek to help them have a strong understanding of their role and the requirements of the program to ensure compliance with the program rules.

In 2022, we received 6,714 queries from stakeholders and consumers, 93 per cent of which were responded to within 10 days.

In 2022, we engaged with stakeholders to set and/or update our administrative and evidentiary requirements on the following matter.

Engagement on new code of conduct implementation requirements

A key part of our implementation approach included engagement and education of program participants through a series of workshops and the publication of supporting resources.

After the code introduction, we consulted and sought feedback from accredited persons on our proposal for accredited persons to record lead generation information when submitting their certificate creation forms and to acknowledge compliance with the code when creating certificates.

Stakeholder feedback was taken into account in developing the final certificate creation forms which were implemented for specified activities.

Victorian Energy Upgrades forums

In 2022, we held two online stakeholder forums where attendees were provided an update on program performance for the year as well as market insights, key trends and program changes.

The first forum in July, attended by 238 people included:

- A presentation by the department, outlining the scope of the VEET Act changes and the VEET Amendment Bill.
- A presentation by Agriculture Victoria on case studies of project-based activities projects that leveraged certificates under the program in order to implement upgrades in the agricultural sector.

The second forum in December, attended by 226 people, included:

- A presentation by the Australian Communications and Media Authority (ACMA) to educate attendees on requirements under Australia's telemarketing legislation.
- A presentation by the department on the implications of the VEET Amendment Act for program participants.

Consultations and forum presentation are available on the [commission website](#).

Collaboration with other government organisations

We strengthened relationships with our co-regulators in Victoria and across Australia in 2022, to enable information sharing, to identify and address common compliance issues, and to align operation of the program with other energy efficiency schemes.

We worked with other agencies during the year to deliver better outcomes for both the program and Victorian consumers, including collaboration with:

- The Department of Energy, Environment and Climate Action: to prepare for the program amendments.
- Solar Victoria: to share issues and challenges common across the VEU program and Solar Victoria's Home Heating and Cooling Upgrades program and Solar Homes program.
- Sustainability Victoria: in relation to their design, implementation and monitoring of the Small Business Energy Saver program – a program set up to support Victorian small businesses to access upgrades under the program.
- Victorian Building Authority and Energy Safe Victoria: to improve responses to identified compliance issues and to enhance regulatory alignment with the *Building Act 1993* and *Electricity Safety Act 1998*.
- Independent Pricing and Regulatory Tribunal (IPART): to align our product application process for water heating products and to share issues and challenges common across the VEU program and the New South Wales Governments' Energy Efficiency Scheme.
- Consumer Affairs Victoria: to address marketing and other consumer related complaints. We referred five cases of potential breaches of Australian Consumer Law to the organisation in 2022. More information can be found on [page 28](#).
- Australian Communications and Media Authority (ACMA): to build a coordinated regulatory approach to telemarketing and lead generation as part of implementation of the VEU code of conduct.

Working with New South Wales regulator to implement harmonised and streamline water heating product application processes

During the year, we worked with our New South Wales counterparts, the Independent Pricing and Regulatory Tribunal (IPART), to integrate the application process for residential/business and commercial solar and heat pump hot water products across both the VEU programs and New South Wales' Energy Efficiency Scheme (ESS). In developing changes to the product application systems and process, we also consulted with members of the Australian Water Heating Forum.

Applicants can now submit their solar and heat pump product applications using the VEU registry for both programs in the one application. We have also streamlined the process to enable applicants to:

- Upload more product models to an application under certain conditions.
- Upload product information directly into the VEU registry portal into the system by uploading an Excel spreadsheet.

These changes have paved the way for efficiency gains for product manufacturers, and resourcing gains by the commission and IPART.

We worked closely with IPART on managing product compliance, independent testing of products and technical issues during the year, delivering benefits for both programs.



Collaboration to promote best practice Measurement and Verification across Australia

The Project-Based Activities Measurement and Verification method (M&V) is used for energy-saving projects at commercial and industrial sites, typically with large energy use. Savings are determined by comparing energy use before and after the project implementation, based on internationally accepted measurement and verification techniques.

Over 2022, the commission partnered with the Department of Energy, Environment and Climate Action and our New South Wales counterparts, the Department of Planning, Industry and Environment (DPIE), and IPART, to develop common materials that promote best-practice in the M&V method across both the VEU program and the ESS, Australia's two largest programs using M&V methods. This was in response to the recognition that some aspects of M&V are poorly understood by accredited persons in both jurisdictions.

The M&V best practice guide covers general best practise based on the International Performance Measurement and Verification Protocol, which defines robust modelling and measurement processes for energy savings projects. The guide outlines specific details for successfully creating certificates under the VEU and the ESS respectively, highlighting the differences between the two programs.

Partnering with industry experts, a training course to complement the guide was designed, with a focus on upskilling accredited persons delivering M&V products in Victoria and NSW. This training course is planned to begin in July 2023.

The training course and guide will assist M&V practitioners across Australia, with a specific focus on problem areas observed in M&V project submissions received through the VEU program and ESS. We expect this initiative to raise the standards of M&V across Australia, which should deliver time savings for practitioners and program administrators, and cost savings for business consumers accessing these M&V projects.

Revisions to our IT systems

We continued to release system updates and system changes to our Victorian Energy Upgrades Registry system to:

- Reflect changes in the legislative and administrative settings of the Victorian Energy Upgrades program.
- Facilitate updates to backend-supporting software development and user interfaces.
- Streamline our administrative systems and processes.
- Improve system performance and availability by reconfiguring back-end data queries.

Work on the development of a new IT system to replace the current Victorian Energy Upgrades Registry system will continue. The aim of the replacement project is to deliver a secure and versatile IT system that can cater for changes to the scheme, deliver operational efficiencies and improve the user experience.

Release of 'Find an accredited person' tool

We released a new [tool on the commission website](#) which provides consumers with the ability to identify the volume of upgrades delivered by accredited persons over the previous 12 month period for a selected upgrade type and a selected region. The tool is intended to assist business and residential consumers find accredited persons to deliver their desired upgrade for a particular location.

Glossary

Term	Definition
activity or prescribed activity	An activity which is prescribed under the Victorian Energy Efficiency Target (VEET) Act and regulations which provides for certificates to be created under the program for reduction in greenhouse gas emissions that would not have occurred if the activity was not undertaken.
accredited person (AP)	Person accredited under the Victoria Energy Upgrades program. Once accredited, a person is eligible to create certificates in the program in respect of prescribed activities.
certificate or VEEC	Victorian energy efficiency certificate representing one tonne of carbon dioxide equivalent of greenhouse gases to be reduced by the prescribed activity.
certificate created	Victorian energy efficiency certificate created as part of the program, representing one tonne of carbon dioxide equivalent of greenhouse gases to be reduced by the prescribed activity.
certificate registered	Victorian energy efficiency certificate created as part of the program and registered by the commission. Only registered certificates are available for trading or surrender under the program.
certificate surrendered	Victorian energy efficiency certificate surrendered to the commission by either a relevant entity to acquit their legislative obligations, or by an accredited person as a result of compliance and enforcement actions initiated by the commission.
certificate withdrawn	Victorian energy efficiency certificates created but then withdrawn by the accredited person. These certificates may be re-submitted for registration at a later date by the accredited person.
commission	Essential Services Commission, established under the <i>Essential Services Commission Act 2001</i> .
compliance year	Period over which each annual target must be achieved, which is a full calendar year.
department	The Department of Energy, Environment and Climate Action (previously Department of Environment, Land, Water and Planning). The Victorian Government department responsible for developing the VEET Act, regulations and specifications for the program.

Term	Definition
ESS	New South Wales' Energy Savings Scheme.
energy acquisition statement	Annual statement by a relevant entity about the amounts of electricity and gas acquired under program acquisitions during the year.
energy efficiency certificate shortfall	Number of certificates for which a relevant entity has failed to acquire its share of the program target.
energy efficiency shortfall penalty	Civil pecuniary penalty for which a relevant entity is liable in the event of an energy efficiency certificate shortfall.
greenhouse gas	Carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons, perfluorocarbons and any other gas prescribed to be a greenhouse gas.
GJ	Gigajoule – one thousand million joules.
GWh	Gigawatt hour – one million kilowatt hours.
IPART	Independent Pricing and Regulatory Tribunal, the regulator of the New South Wales' Energy Savings Scheme.
MWh	Megawatt hour – one thousand kilowatt hours.
PBA	Project-based activities method which helps businesses access incentives for large and custom projects under the program.
relevant entities	Energy retailers who have an obligation under the VEET Act to surrender certificates.
regulations	The Victorian Energy Efficiency Target Regulations 2008 (the VEET Regulations) and the Victorian Energy Efficiency Target (Project-Based Activities) Regulations 2018 (PBA Regulations).
scheme participant	Persons that undertake aspects of an upgrade, such as lead generation, marketing, scheduling and/or installation, on behalf of an accredited person.
the program	The Victorian Energy Upgrades program. Also known as the VEET scheme as established under the <i>Victorian Energy Efficiency Target Act 2007</i> .
upgrade	An upgrade occurs where energy efficient products are installed at a consumer's premises in accordance with the requirements of a prescribed activity under the VEET Act and regulations.
VEET Act	<i>Victorian Energy Efficiency Target Act 2007</i> .



Appendices

Appendix A: Victorian Energy Upgrades program framework

Our role

We administer the program in accordance with the VEET Act and regulations. Our responsibilities include:

- Accrediting persons who can create Victorian energy efficiency certificates (VEECs) under the program.
- Validating the creation of certificates for registration.
- Administering the registration, transfer, and surrender of certificates.
- Approving energy efficient products that can be installed under the program.
- Setting performance standards for certain products to be installed under the program.
- Monitoring compliance with the VEET Act, regulations, and guidelines.
- Issuing shortfall statements and enforce energy efficiency shortfall penalties.
- Maintaining electronic registers.

Our regulatory responsibilities are set in the VEET Act, the regulations, the specifications, and the guidelines.

The VEET Act

The [VEET Act](#) came into operation on 1 January 2009. It is the primary legislation establishing the program and enables the authority of regulations and guidelines to be made. We administer the VEET Act and discharge our regulatory responsibilities as set in regulations, specifications and guidelines.

The objectives of the program as set out in the VEET Act are to:

- Reduce greenhouse gas emissions.
- Encourage the efficient use of electricity and gas.
- Encourage investment, employment and technology development in industries that supply goods and services which reduce the use of electricity and gas by consumers.

The VEET Amendment Act

The [VEET Amendment Act 2022](#) amends the VEET Act to:

- Expand the powers and functions of the commission under the VEET Act.
- Extend the operation of the program until the end of 2030.
- Introduce new accreditation requirements.
- Provide for the granting and administration of accounts for transferring certificates under the VEET Act.
- Further provide for the internal review, and provide for the external review, of certain decisions made by the commission.
- Further provide for matters relating to the enforcement of the VEET Act and regulations made under that Act, including by introducing new offences and engaging with the civil penalty requirement regime under the *Essential Services Commission Act 2001*.
- Provide for the conduct of compliance audits and assurance audits of accredited persons.
- Make other miscellaneous and consequential amendments.

These amendments took effect from 1 July 2023.

The Regulations

The VEET Act is supported by the [Victorian Energy Efficiency Target Regulations 2018](#) (the VEET Regulations) and the [Victorian Energy Efficiency Target \(Project-Based Activities\) Regulations 2017](#) (PBA Regulations).

The VEET Regulations specify what activities can create certificates. This includes what products can be installed and the greenhouse gas abatement for each activity. The VEET Regulations also includes a code of conduct for accredited persons and scheme participants which sets minimum standards of behaviour aimed at protecting consumers and strengthening public confidence in the program. The PBA Regulations set out the requirements for project-based activities via two methods – measurement and verification and benchmark rating.

The Specifications

The [VEU Specifications](#) are made by the Secretary of the Department of Energy, Environment and Climate Action and contain the technical requirements for activities prescribed in the VEET Regulations, and the methods and variables for determining the amount of greenhouse gas equivalent emissions reduced by each activity prescribed in the VEET Regulations.

There are two separate specification documents under the PBA Regulations:

- The [Measurement and Verification in the Victorian Energy Upgrades Program – Specifications](#) sets out the rules for defining the methods and variables to be used when calculating the abatement of a prescribed activity using the Measurement and Verification method.
- The [Benchmark Rating in Victorian Energy Upgrades – Specifications](#) sets out the rules for defining the methods and variables to be used when calculating the abatement of a prescribed activity using the Benchmark Rating method.

The VEET Guidelines

The VEET Act requires that certain actions be done in accordance with the [VEET Guidelines](#). A failure to comply with certain parts of the VEET Guidelines may be a breach of the VEET Act and result in enforcement action.

Relevantly, the VEET Act provides:

- An accredited person must comply with any continuing professional development obligations specified in the VEET Guidelines.
- An assignment of certificate must be made in the manner and form specified in the VEET Guidelines.
- A certificate must be created in an electronic form specified in the VEET Guidelines.
- Notification of transfer of a certificate must include information specified in the VEET Guidelines.
- An energy acquisition statement must contain information, and be made in a form and manner, specified in the VEET Guidelines.
- An independent auditor, when conducting a compliance or assurance audit, must comply with matters specified in the VEET Guidelines.
- An accredited person and relevant entity must keep records relevant to ascertaining matters specified in the VEET Guidelines.

In addition, the VEET Guidelines contains information and guidance on a range of other matters relevant to the commission's administration of the VEET Act.

Our compliance and enforcement approach

The VEET Act provides the commission with auditing and enforcement powers to ensure that accredited persons properly create certificates, and that relevant entities surrender enough certificates to acquit their liability for the reporting year.

Our key goal is to safeguard the integrity of the program by maintaining confidence in the energy efficiency benefits delivered to consumers, and delivering a balanced, transparent and efficient program for participants. We do this by implementing an integrated risk-based framework to all our regulatory activities, and regularly engaging with stakeholders to discuss improvements.

The compliance-driven functions we undertake include:

- Accreditation of persons seeking to participate in the program or to extend their accreditation to be able to deliver new activities.
- Risk-based pre-registration checks of certificates created by accredited persons.
- Audits and investigations of accredited persons.
- Assessment and listing of products to ensure they meet the required eligibility criteria.

See our [compliance and enforcement policy](#) (released April 2022) for further information on our compliance and enforcement approach.

Shortfall statements and enforced energy efficiency shortfall penalties

Relevant entities determine the number of certificates they are required to surrender each year by calculating their annual greenhouse gas emissions liability. This liability is calculated by multiplying each of that year's electricity and gas acquisitions with the relevant greenhouse gas reduction rate.

For 2022, the greenhouse gas reduction rates were fixed at 0.16113 for electricity and 0.01078 for gas. We may issue a shortfall statement imposing an energy efficiency shortfall penalty on a relevant entity if it fails to surrender sufficient certificates to acquit its liability in a given year.

The civil penalty is determined by multiplying the relevant entity's certificate shortfall for the year by the prescribed shortfall penalty. The shortfall penalty rate for 2022 was fixed at \$80 per certificate.

Appendix B: Table of VEECs created and registered by prescribed activity

Activity type	VEECs created			VEECs registered		
	Number of upgrades	Number of VEECs	% VEECs change from 2021	Number of upgrades	Number of VEECs	% VEECs change from 2021
Water heating activities	1 Jan 2022 – 31 Dec 2022					
1A - Water heating - Gas/LPG storage replacing electric resistance	24	590	-56%	24	590	-57%
1B - Water heating - Gas/LPG instantaneous replacing electric resistance	382	9,642	-60%	387	9,818	-62%
1C(18) - Water heating - Electric boosted solar replacing electric resistance	70	2,106	-46%	79	2,433	-36%
1D(18) - Water heating - Heat pump replacing electric resistance	29,346	760,095	13%	28,611	745,516	18%
1F - Water Heating - Gas/LPG boosted solar replacing electric resistance	7	265	-74%	7	265	-78%
3B - Water heating - Gas/LPG boosted solar replacing gas/LPG	7	66	-59%	7	66	-61%
44 - Commercial and industrial heat pump water heater	525	22,202	N/A	77	3,148	N/A

Appendix B: Table of VEECs created and registered by prescribed activity (cont.)

Activity type	VEECs created			VEECs registered		
	Number of upgrades	Number of VEECs	% VEECs change from 2021	Number of upgrades	Number of VEECs	% VEECs change from 2021
Space heating & cooling activities	1 Jan 2022 – 31 Dec 2022					
5(18) - Space heating - Ducted gas heater	1,159	17,550	-24%	1,156	17,502	-26%
7(18) - Space heating - Ducted air heat pump replacing ducted air heat pump (revoked)	11	1,056	-54%	11	1,029	-52%
9(18) - Space heating - Gas/LPG space heater	2	124	63%	2	124	63%
10(18) - Space heating - Room to air heat pump	2,363	32,917	120%	1,633	22,812	233%
23 - Space heating and cooling - Ducted evaporative cooler	2	26	N/A	2	26	N/A

Appendix B: Table of VEECs created and registered by prescribed activity (cont.)

Activity type	VEECs created			VEECs registered		
	Number of upgrades	Number of VEECs	% VEECs change from 2021	Number of upgrades	Number of VEECs	% VEECs change from 2021
Lighting Activities	1 Jan 2022 – 31 Dec 2022					
21A(18) - Lighting - Incandescent GLS or CFL replacement	73,425	313,096	-83%	75,630	355,712	-80%
21B - Lighting - Incandescent reflector lamp replacement	27,540	47,991	-85%	28,766	52,140	-83%
21C - Lighting - 12V halogen lamp replacement	16,809	99,780	-75%	16,274	99,090	-75%
21D - Lighting - 12V downlight and transformer replacement	1,747	19,251	-37%	1,680	18,710	-35%
21E - Lighting - Mains voltage GU10 halogen lamp replaced with GU10 lamp	10,373	47,295	-72%	10,827	50,073	-70%
21F - Lighting - Mains voltage GU10 downlight replaced with integrated downlight	196	3135	-17%	10,827	50,073	-70%
27(18) - Public lighting	29	94,257	47%	33	119,607	333%
34 Non J6(18) - Building based lighting upgrade	22,973	2,986,443	-14%	21,611	2,799,818	-16%
35(18) - Non-building based lighting	186	33,654	38%	163	25,752	13%

Appendix B: Table of VEECs created and registered by prescribed activity (cont.)

Activity type	VEECs created			VEECs registered		
	Number of upgrades	Number of VEECs	% VEECs change from 2021	Number of upgrades	Number of VEECs	% VEECs change from 2021
Refrigerator/freezer activities	1 Jan 2022 – 31 Dec 2022					
22 - High efficiency refrigerator and freezer	80	89	-76%	80	90	-69%
32(18) - Refrigerated display cabinet	976	67,810	-10%	999	70,525	-5%
32(21) - Refrigerated cabinet	38,965	2,306,221	4,585%	35,913	2,112,970	6,203%
Other activities	1 Jan 2022 – 31 Dec 2022					
13 - Double glazed window	6	25	N/A	2	10	N/A
15 - Weather sealing	201,692	518,580	666%	158,763	397,996	789%
17 - Low flow shower rose	149,008	260,671	30%	127,314	222,601	20%
25 - Energy efficient clothes dryer	13	13	550%	13	13	550%
30 - In-home display unit	327,473	656,550	92%	306,689	616,234	107%
36 - Water efficient pre-rinse spray valve	138	705	17,525%	138	705	17,525%
37 - Gas efficiency - Steam boiler	1	642	N/A	1	642	N/A
39 - Gas efficiency - Gas/air ratio control	3	159	N/A	0	0	N/A
42 - Gas efficiency - Economizer	1	355	N/A	0	0	N/A
43 - Cold room	67	3,030	2,758%	33	1,656	1,462%
Project-based activities (PBA)	1 Jan 2022 – 31 Dec 2022					
PBA measurement and verification	47	140,229	8%	47	140,229	9%
Total	905,646	8,446,620	7%	818,135	7,890,572	5%

N/A as there were no certificates registered or created in 2021.



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